

**AN AUDIT OF THE OUTCOME OF PHYSIOTHERAPY
INTERVENTION FOR OUTPATIENTS
WITH BACK PAIN AGAINST SET
CLINICAL STANDARDS**

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Frimley Park Hospital
Kent & Canterbury Hospital
Mid Kent Healthcare Trust
Queen Elizabeth, the Queen Mother Hospital
Richmond Rehabilitation Unit
St George's Hospital
Thameslink
William Harvey Hospital
Worthing Hospital

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Contents

Introduction	5
Background to the audit	6
The audit process	6
Resourcing for the audit	7
The audit	9
Audit locations	9
Audit title	9
Audit team	10
Audit stages	10
Audit venues	10
Type of audit	10
Sample size	11
Sampling	11
The audit tool	11
Occupation	12
Episode	12
Secondary diagnosis	12
Body site	12
Laterality of symptoms	12
Waiting times	12
Weighting of psychosocial and physical factors affecting the physiotherapy process	12
Functional outcome	13
Date patient terminated treatment	13
Outcome of referral	13
Treatment details	13
Total effort score	13
Goal achievement at discharge	14
Other factors influencing outcomes	14
Number of treatments	14
Grade of physiotherapist	14
Pain, function and ability to work levels	14
Referral source	14
Audit results	
Management of audit data	15
Analysis of data	15
Age groups of patients referred for low back pain	16
Gender	16
Age group and gender	16
Occupation	16
Occupation by physiotherapy location	17
Frequency of episode	17
Frequency of secondary diagnosis	17
Body site referral	17
Laterality of symptoms	17
Waiting times	18
Psychosocial and physical factors impacting on therapy	18
Outcome of referral	19
Other factors influencing outcome	19
Treatment modalities	19

contents page cont..

Treatment strategies for patients undergoing normal discharge	20
Preferred treatment modality by hospital location	20
Total effort scores	21
Number of treatments	21
Frequency of grade of physiotherapist by numbers of of patients treated	21
Referral source	21
Functional assessment	22
Expected functional outcome	22
Grades of physiotherapists and the numbers of treatments given	22
Preferred treatment by physiotherapy grade	22
Patient perceived pain	23
Functional ability	23
Ability to work	24
Goal achievement for those normally discharged	24
Goal achievements by units of location	24
Effort scores versus number of treatments	25
Changes in functional ability	25
Change in functional ability by outpatient unit location	25
Frequency of change of functional ability by grade of physiotherapist	26
Achievement of set standards	27
Reflections on the audit process	29
Recommendations for future investigation and/or research activity	31
References	32

Appendices

Tables

QUOTATION

'Clinical Audit is the systematic, critical analysis of the quality of clinical care including the procedures used for diagnosis and treatment, the use of resources and the resulting outcome and quality of life for the patients/clients (DOH 1989)

Introduction

Clinical audit since the publication in 1989 of the NHS circular (GEN 29) has had an unprecedentedly high profile in the health service which has been endorsed by the government as well as all health professional associations.

The Department of Health definition of clinical audit (DOH 1989) stated on page 3 serves as a useful statement on which to base audit activity and has served as an underlying ethos on which to base this current report.

Physiotherapy is a relatively young profession and has gathered momentum in recent years in terms of research activities and in the measurement of clinical effectiveness. As with other professions engaged in health care, physiotherapists pursue activities within a variety of specialities. For physiotherapists, one of the core areas of specialism is the management of musculoskeletal dysfunction, most commonly dealt with in outpatient physiotherapy departments within NHS hospital trusts but also in the private sector, in private hospitals and in private practices.

One of the most common problems presented by patients in outpatient physiotherapy clinics is low back pain defined by Walsh et al (1992), the OPCS survey (1993) and Croft et al (1994) and cited by Waddell in the CSAG report in 1994 as pain presenting between the lowest ribs and the inferior gluteal folds lasting for more than 24 hours.

Waddell (1987) has suggested a lifetime prevalence for low back pain of between 60-80% of the population and the CSAG report (CSAG 1994) indicates that 50% of back pain attacks settle more or less completely within 4 weeks but in 15-20% continue to give some degree of symptoms for at least 1 year. It is suggested that 70% of people who have experienced an attack of back pain will suffer 3 or more reoccurrences in their lifetime and that 20% of people with back pain, that is 5-10% of the population will continue to have some degree of back symptoms over long periods of their lifetime (CSAG 1994). It is agreed that low back pain is multifactorial in its aetiology with age, gender, social class, occupation and smoking being implicated with variable degrees in its onset and progression and that some of these variables may be implicated in the take up and usage of health care facilities. e.g. social class, age and gender.

The authors of the CSAG report (1994) made an estimation based on an OPCS survey (1993) that 1.3 million people receive physiotherapy for back pain each year and based on another study (Moffat et al 1993) that 0.3 million receive private physiotherapy and therefore assumed that 1 million sufferers must receive treatment in an outpatient physiotherapy setting each year.

Surveys of new referrals to physiotherapy for low back pain carried out by Croft et al (1994) indicates that between 17-46% of direct general practitioner referrals to physiotherapy were for low back pain excluding community and practice based physiotherapy referrals. In an unpublished study carried out in Glasgow, low back pain accounted for an estimated 20% of physiotherapists workload, but in Moffat et al's (1993) study, it was estimated that only 10% of the NHS physiotherapists staff time was dedicated to patients with low back pain. In a recent report by Moore

(1996) of Mid Kent Healthcare Trust outpatient physiotherapy services, 25% of patients for outpatient physiotherapy care received treatment for low back pain with or without distal limb referral over a 1 year period. These figures indicate the high level of burden placed upon physiotherapy services by low back pain sufferers and the subsequent potential economic implications of ineffective and inefficient care.

Background to the audit

In 1995, East Kent Health Authority funded the first year of a three year project to develop models of care from the assessment of appropriate physiotherapy treatment methods in relation to clinical outcome. Physiotherapists across South East Kent collaborated to develop clinical guidelines in 5 key areas of physiotherapy; outpatients, care of the elderly, orthopaedics, respiratory care and neurology. The project floundered after the first year due to lack of funds. From 1993, Mid Kent Healthcare Trust funded consultant support from the University of Brighton, Department of Occupational Therapy and Physiotherapy (now School of Healthcare Professions) to establish a tool to measure the effects of physiotherapy intervention in the general outpatient setting and to gather data on current practice. An outcome measurement tool was developed in liaison with patients and staff by the consultant and was piloted over a 15 month period in 3 outpatient physiotherapy departments within Mid Kent Healthcare Trust. The outcome measurement tool together with a full report of it's development was published by the University of Brighton in collaboration with Mid Kent Healthcare Trust (Moore 1996), and the measurement tool is now integrated into the day to day practice of physiotherapists working in outpatient departments throughout Mid Kent Healthcare Trust and has also been adapted for use in other areas of physiotherapy practice within the Trust. It has also been adopted by other physiotherapy departments throughout the country.

In essence, the original tool consisted of a data sheet (discharge summary sheet) consisting of 31 items requiring a response from the physiotherapist (see appendix 1) together with a codings list.

In the published report (Moore 1996) low back pain was identified as the most common reason for patient referral to the outpatient department in the Mid Kent Healthcare Trust. Therefore low back pain was chosen as the topic for the current audit work which is entitled 'An audit of physiotherapy intervention for outpatients with low back pain against preset clinical standards'.

The audit process

The notion of an audit of low back pain was discussed in the Autumn of 1996 within the Mid Kent Healthcare Trust. At this stage, it was intended that 7 physiotherapy outpatient departments across the South Thames Region would take part using the Mid Kent and University of Brighton outcome measurement tool which would be audited against East Kent's clinical standards.

Resourcing for the audit

It was anticipated that the audit project would require:

- a. clinical support to provide and undertake workshops in each participating department in the use of the outcome measurement tool and to discuss the value of the proposed audit.
- b. secretarial support for the inputting of data.
- c. audit experience to monitor and provide data output for analysis.
- d. financial support for computing hardware at the base data collection site together with relevant consumables.
- e. clinical leadership support.
- f. academic support from the University of Brighton to analyse data and write the report.
- g. minor compensation for each clinical site in recognition of the effect of audit work on contractual activities.

The Director of Physiotherapy at Kent and Canterbury Hospital and the then Physiotherapy Manager from Mid Kent Healthcare Trust were identified as joint clinical leaders for the project.

In November 1996, a bid for funding for the project was submitted to the Clinical Audit Programme Management Group, South Thames Region and funding was approved and confirmed in December 1996. In mid December 1996, the first planning meeting of the low back pain audit group met. The group included:

Janet Fry, Director of Physiotherapy Services, Kent and Canterbury Hospital and joint clinical leader.

Carol Groom, Physiotherapy Manager, Mid Kent Healthcare Trust and joint clinical leader.

Jane Woodward, Audit Manager, Audit Department, Mid Kent Healthcare Trust.
Professor Ann Moore, Consultant to the project from the University of Brighton, School of Healthcare Professions.

Dr Jean Richards from West Kent Public Health Department was appointed by the South Thames Audit committee to monitor the project's progress.

The initial plan was to use 7 physiotherapy departments in the South Thames Region. In the event 10 trusts entered the audit and contributed data to the overall audit process. The participating units were:

Dartford & Gravesham Hospital
Frimley Park Hospital
Kent & Canterbury Hospital
Mid Kent Healthcare Trust
Queen Elizabeth, the Queen Mother Hospital
Richmond Rehabilitation Unit
St George's Hospital
Thameslink
William Harvey Hospital
Worthing Hospital

At the first meeting of the Audit Management Group, the audit topic was refined, participant roles were clarified, a plan for the audit was established and a list of units which would be asked to participate was drawn up. Procedures for the analysis of results were also established.

In February 1997, a further meeting of the Audit Group took place to define the audit topic, agree standards to be audited against and to discuss the relevance, and make minor modifications to the original outcome measurement tool for the current audit. The meeting was also used to establish the population size for the audit. It was anticipated that 200 patients from each unit would be included in the audit giving a proposed total audit population of 2000 subjects from 10 sites.

In May 1997, workshops took place within the participating units to explain the audit process, the outcome measurement tool and the project as a whole.

Feedback from the workshops provided valuable information which contributed to the final codings used in the discharge summary sheets for audit purposes.

In July and August of 1997, each unit trialled the discharge summary sheet and returned the pilot data to Mid Kent Healthcare Trust for inputting in order for any discrepancies in data to be identified and for further support to be provided if necessary to the participating units. At this stage, 80 data sets were analysed for conformity.

The main audit commenced in September 1997 following a variable response by units to the pilot audit work.

By the end of November 1997, less than 10% of the anticipated number of discharge summary sheets had been received. However, further data was received in January bringing the total number of data sets to, at that stage, 335.

In February 1998, a meeting was held with the project management group and representatives from each of the participating units. By this stage 414 data sets had been received. Some content issues were identified in relation to the discharge summary sheets and some areas in particular were identified which would need consideration for any further audit work. Units were urged at this time to speed up the rate of data collection and the speed of return of completed data sheets.

Constraints affecting the audit activities were identified by representatives from the units:

1. Some discharge summary sheets which had been completed by two trusts had not been received centrally. The reason for this was uncertain.
2. Units required much clearer instructions with regard to cut off and response dates.
3. Turnover of staff and staff rotations presented difficulties with consistency of audit form completion and return.
4. Patients treated in general practices had not been included by some units due to the time constraints. Therapists based in general practices found it hard to justify the extra time required to complete the summary sheets to fundholders.

In some Trusts patients had been excluded from the audit if their therapist had left the unit before their treatment had been completed despite another therapist taking the patient onto their list. It was agreed that the tool would be modified at a later stage to include information about the number of therapists who had been involved in the management of the patient.

Generally there was surprise amongst the audit group at the small number of returns that some units had made and representatives from units did not think that the returns necessarily reflected the actual referrals received for patients with low back pain in their units.

Final data sheets were received at the end of February and the audit officer entered data and downloaded the data analysis according to the requirements discussed with the Audit Management Group and the representatives of the unit.

The data was then handed to the University of Brighton Consultant at the end of March 1998 for detailed professional analysis and report writing. The final report was published in early October 1998, a further audit for physiotherapy intervention for patients with cervical spine dysfunction is now taking place which has been informed significantly by the low back pain audit and especially by the intellectual input of the representatives from the NHS units which took part in the original audit.

The Audit

Audit Topic - Low Back Pain

For the purposes of this audit, low back pain is defined as pain presenting between the lowest ribs and the inferior gluteal folds lasting for more than 24 hours (CSAG 1994).

Patients presenting with low back pain with or without referral of symptoms into the lower extremities were included in the audit.

Audit Locations

Ten NHS Trusts in the South Thames Region.

Dartford & Gravesham Hospital
Frimley Park Hospital
Kent & Canterbury Hospital
Mid Kent Healthcare Trust
Queen Elizabeth, the Queen Mother Hospital
Richmond Rehabilitation Unit
St George's Hospital
Thameslink
William Harvey Hospital
Worthing Hospital

Audit Title

Audit of the outcome of physiotherapy intervention for out patients with low back pain.

Audit Team

Ms Maria Yeomans, Programme Manager
Mrs Carol Groome, Clinical Leader
Miss Janet Fry, Clinical Leader, Workshop Facilitator
Mrs Jane Woodward, Audit Consultant
Professor Ann Moore, Academic and Professional Consultant to the team,
University of Brighton
Miss Diane Collyer, Workshop Facilitator
Ms Anne Heywood, Administrative Support
Mrs Lorinda Creswell, Administrative Support
Mrs Nicky Stacey, Administrative Support
Mrs Jackie Langford, Assistant to Professor Ann Moore
Mr Alan Hough, Technical Support to Professor Ann Moore

Audit Stages

Planning - Role identification
 Feasibility study
 Resourcing
 Meetings for planning and feedback
 Training workshops

Pilot of Audit

Feedback

Main Audit

Data Entry

Data Processing

Analysis

Report Writing

Audit Venues

Physiotherapy outpatient departments within ten trusts in the South Thames Region took part in the audit. The audit base for data collection was Maidstone Hospital (Mid Kent Healthcare Trust). The analysis of data and the report writing took place at the University of Brighton, School of Healthcare Professions.

Type of Audit

A number of elements of structure, processes and outcomes were audited in a prospective audit of low back pain management by physiotherapy services.

Sample size

The planned sample size was 2000. The actual sample size was 564 patients of whom 331 received a normal discharge. i.e. fully completed physiotherapy treatment

Sampling

The first 200 new patients fulfilling the audit topic definition were to be admitted to the study by each participating physiotherapy department. All appropriate patients therefore had equal chance of being admitted to the audit.

The Audit Tool

Following the incorporation of the Mid Kent and University of Brighton outcome measurement tool into everyday practice in Mid Kent Healthcare Trust's physiotherapy departments and the successful use of the tool in the 12 month pilot study, the measurement tool was deemed to have face and content validity for the current audit even though it was designed as a general tool for outpatient use and not for specific use with low back pain sufferers. Since the original work was carried out, funding has not been available to test the inter and intra tester reliability of the tool.

The original outcome measurement was adapted slightly for this audit in several ways:

- an episode section was added to determine whether the patient was suffering from a first episode or a recurrent problem
- the reason for referral section was removed as it was specific to local units needs
- the physiotherapist identification section was removed in order to maintain individual therapists confidentiality
- some minor additions to section codings were made to the following sections to reflect some unit's local needs
 - treatment details
 - other factors
 - body site codings
 - referral source

For the outcome measurement tool discharge summary sheet used for the low back pain audit - see appendix 2. The tool adjusted for the South Thames Audit of Low Back Pain, consisted of 27 items to be completed by the physiotherapist in charge of the patient care in conjunction with the patient. It consisted of a summary sheet which detailed items for response and allowed the addition of coded responses.

The remainder of the tool consisted of a criteria for coding used for the completion of each item as appropriate.

The unit locations of the participating outpatient physiotherapy departments were all coded randomly for inclusion into the audit. Unit location codings are not given for purposes of anonymity.

Occupation

Occupations were classified using a modified version of the registrar general's classification (OPCS 1992).

Episode

Episode was classified as either first episode or recurrent to give some idea of chronicity.

Secondary diagnosis

Secondary diagnosis was made on the basis of a systems diagnosis. e.g. neuromusculoskeletal, degenerative etc.

Body site

Up to 4 body site areas could be recorded for each patient specifically for those with multiple problems. As can be seen from appendix 2, spinal regions were classified in terms of central problems or those referring to distal areas.

Laterality of symptoms

Laterality of symptoms were recorded as either bilateral or unilateral.

Waiting times

Referral dates and dates of commencement of treatment were recorded for administration purposes but also to calculate the length of patient wait from the first contact with the present problem with their GP/consultant to the time of referral to physiotherapy in weeks. Additionally the length of wait was recorded for the time patients were required to wait in weeks from referral date by their GP/consultant to commencement of treatment within the physiotherapy service.

Weighting of psychosocial and physical factors affecting the physiotherapy process

This item was based on the Wirral formula (Ball et al 1993). Categorisation took place of the problem necessitating consultation, communication/sensory difficulties, mobility problems, other conditions and social circumstances. These problems were each rated on a scale of 1-5.

A score of :

1. = acknowledged the problem existed
2. = a mild problem
3. = a moderate problem
4. = quite a severe problem
5. = a severe problem

Scores of 2 or more in any category would normally have some direct impact on the ease or difficulty of physiotherapy treatment. The minimum possible score was 0 which might occur in patients in condition had resolved spontaneously prior to treatment commencing. A maximum score of 25 was possible for a patient with multiple pathologies and severe social circumstances.

Functional Outcome

The initial assessment of functional ability (IAFA), expected functional outcome (EFO) and assessment of actual functional outcome (AAFO) were all recorded. The initial assessment of functional ability and assessment of expected functional outcome were recorded at first attendance. Actual functional outcome was recorded at completion of treatment or at discharge. All were rated using the same scale. This scale was designed to assess functional, physical and subjective outcome of treatment and was completed by the therapist and the patient in consultation. The categories and descriptors were designed to reflect patient progress in independence, pain, joint range, ability to work and sporting activities. (See appendix 2 for details)

Date patient terminated treatment

This item allowed for a calculation of the total treatment.

Outcome of referral

Outcome of referral allowed the recording of not only patients who were discharged normally but also incidence of non attendance, transfers inside and outside the district and inappropriate referrals. (See appendix 2 for details)

Treatment details

Treatment details were recorded either as individual modalities, e.g. mobilisations, or as combinations of modalities, e.g. mobilisations, advice and ultrasound. The predominating treatments were always recorded. A total of 4 treatment strategies could be recorded for each patient for each treatment period. This flexibility was allowed to address the issues of modalities being modified in relation to progression/regression of the prevailing problem or set of problems and in recognition of the dynamic nature of the clinical interaction process.

Total effort score

Effort scores were based on those introduced by (Ball et al 1993), originally incorporated into the Wirral formula. An activity / treatment modality or administrative activity, e.g. letter writing, was scored in terms of time taken to carry out the task and the degree of effort required in achieving the task successfully. Class taking, for example, was scored according to the formula shown in appendix 2, effort was graded on a scale on 1-10 taking into consideration the application of knowledge, skill application, vigour expended, self motivation needed to undertake the task, physical and mental exertion required, strength required, concentration required, conviction and the motivation of others necessary to complete the task. Effort was recorded at the end of each contact period and the total effort score for the whole treatment period recorded on the discharge summary sheet.

Goal achievement at discharge

Goal achievement was assessed jointly by the therapist and the patient based on goals set at commencement of treatment. Six categories allowed the choice ranging between worse / no goals achieved to goals exceeded. Each category was given a series of descriptors in respect of range of movement, function, pain relief and ability to work and scored in terms of the number of treatments necessary to achieve that particular rating. Numbers of treatments were categorised as either 1-5 treatments, 6-10 treatments, 11-15 treatments or 16+ treatments. (See appendix 2 for details)

Other factors influencing outcomes

Factors included in this item including anything which might have influenced the outcome of physiotherapy intervention which were beyond the therapists control, e.g.. other medical interventions, life style influences or ceasing to attend etc.

Number of treatments

Number of treatments were recorded in terms of the number of contacts made.

Grade of physiotherapist

The grading of the physiotherapist carrying out the treatment was recorded. (See appendix 2 for details)

Pain, function and ability to work levels

Each of the above were recorded on a 0-10 digital scale. Patients were asked to indicate their pain level, functional ability and ability to work before commencement of treatment and when treatment was completed. Using Jettes principles (1989), of making subjective responses as objective as possible, therapists were instructed to ask patients in respect of each of the above items, the question 'In order to monitor the effects of your treatment, it is important that we find out about your levels of pain, your functional ability and your ability to work at the present time. Please choose a number on the scale of 0-10 which indicates:

- your present level of pain when it is at its worst, where 0 = the least pain you could envisage and 10 = the worst pain you could imagine.
- ability to work where 0 = complete absence of the ability to work and 10 = working normally.
- functional ability where 0 = a total absence of ability to carry out functional tasks at home and in the social setting and 10 = maximum or normal ability to carry out all functional tasks.'

Referral source

See appendix 2 for details.

AUDIT RESULTS

Management of audit data

The data was analysed and downloaded in three ways. Firstly, all data was described and/or tallied for each variable recorded on the discharge summary sheets. Then cross tabulation was carried out between the variables which had been suggested by unit representatives to be of particular interest to them.

Data in this report is presented in its complete form with missing data excluded. The actual numbers on which the statistics are based are given in each section. Finally, it should be noted that detailed analysis of outcomes has been carried out only on those data sets of patients who were normally discharged. i.e. who completed physiotherapy treatment are discharged by their physiotherapist in the normal way. A detailed breakdown of outcome of referral indicates reasons why patients were not discharged normally and therefore lost to the physiotherapy service.

Throughout the text, outpatient department unit locations are identified only by number (randomly allocated) to assure anonymity.

Analysis of data

1. **Total number of patients entering the audit = 564**
2. **Number of patients who entered the audit and were discharged normally having completed physiotherapy treatment = 331**
3. **Patients distribution by unit location**
The total numbers of patients entering the audit in each of the audit unit locations are shown in table 1a, and the total number of patients discharged normally from each unit location is shown in table 1b.

Audit locations 1 and 9 had similar proportions of patients who entered the audit to those who were discharged normally.

Unit location 8 had the greatest percentage increase (3.6%) in those patients who were discharged normally.

Units 2 and 7 also showed a small but proportionate increase in normal discharges.

Location units 3, 4, 5, 6 and 10 showed proportionately smaller percentages of subjects who were discharged normally than the proportion of audit population entry.

Age groups of patients referred for low back pain

The age groups of patients referred for low back pain are shown in table 2a. The mean age of those referred was 45.3 years with an age range of 10 to 86 years.

The largest age group of patients referred was the 30-39 year olds with 21.6% of the population, followed closely by the 40-49 year olds who achieved 19.1% of the total population. These figures reflect the proportionate figures for GP consultations for low back pain (RGCP 1958 and RGCP 1972).

The age ranges of those patients experiencing normal discharge are shown in table 2b.

Age groups 50-59 and above all showed increases in the frequency of normally discharged patients compared to the figures for original referral. The younger age groups 10-49 showed a decrease in the numbers of those discharged normally compared to original referral.

Gender

The frequency tables 3a and 3b indicate an 11.4% higher referral rate for females than males. The table showing gender frequency of those discharged normally indicate that a marginally higher number of females than males were normally discharged.

Age group and gender

Table 4a shows the frequency of gender by age group for all referrals and table 4b the frequencies for all those normally discharged. Of note in table 4a are the large numbers of females in the 30-39 and the 50-59 categories and the high number of males in the 40-49 category. The same proportions exist in table 4b showing the figures for normal discharges.

Occupation

The frequencies of occupational groups for all those referred to physiotherapy for low back pain are shown in table 5a and for patients discharged normally in table 5b. One of the most frequent groups represented were the retired (17.29%) and the semi-skilled and professional service group (16.49%).

The occupational groups showing an increase frequency of normal discharges were the retired group (20.3%) and the skilled manual and non-professional group (14.1%).

These figures may perhaps indicate a greater availability for treatment sessions and/or working lifestyles which enhance compliance with therapeutic strategies.

Occupation by physiotherapy location

Occupations of patients by physiotherapy locations for all those referred are shown in table 6a and for those discharged normally are shown in table 6b. In five units of location, retired was the most common category of occupation. In two units, semi-skilled and professional service was the most common occupation. In one unit, skilled, manual and non-professional occupations and in one unit, unskilled manual was most commonly seen and one unit had a joint maximum of professional and unskilled manual categories. The comparison of tables 6a and 6b show the numbers of patients lost to the service since original referral giving a useful indication of the occupational groups most likely to fail to complete treatment.

Frequency of episode

The frequency of first episode against the current episode for all those referred for treatment of low back pain are shown in table 7a and for those who were normally discharged in table 7b. Interestingly, more of those with recurrent episodes were discharged normally compared to first episodes. This could be due to the nature of the first episode which may have been serious enough to require onward referral, but may possibly reflect the desire for those with recurrent episodes to comply with treatment in order to prevent further recurrences.

Frequency of secondary diagnosis

As shown in table 8a, the secondary diagnosis for all those referred for low back pain most frequently occurring was neuromusculoskeletal (55.57%), followed by those with degenerative problems (23.6%). For those discharged normally, table 8b, again the most commonly occurring secondary diagnosis were neuromusculoskeletal (56.3%) and degenerative problems (25.6%).

Body site referral

The commonest body site area referred within the context of low back pain was lumbar spine pain with referred symptoms followed by lumbar pain occurring in isolation. Those who were normally discharged exhibited similar body site patterns proportional to the originally referred group. (See tables 9a and 9b)

Laterality of symptoms

Unilateral symptoms were slightly more commonly referred to physiotherapy for low back pain disorders (see table 10a), and the larger proportion of those patients who were normally discharged also suffered from unilateral symptoms (see table 10b).

Waiting times

Length of wait in weeks for all those referred from consultation with GP to referral to physiotherapy

The length of wait ranged for all those referred from 0 weeks to 750 weeks with the mode being 0 weeks and the median waiting time being 2 weeks (SIQR 3.0).

Those who were discharged normally waited with a range of 0 to 726 weeks to be referred to physiotherapy with a mode of 0 weeks and a median of 2 weeks (SIQR 2.5).

26.6% of all those referred had no wait at all and 76.1% were referred within 6 weeks of consulting their GP, however 10% waited longer than 18 weeks for referral.

Of those discharged normally, 26.6% had had no wait at all for referral, 79% had been referred within 6 weeks and 10% had waited longer than 18 weeks for referral.

Length of wait from referral to physiotherapy to commencement of physiotherapy treatment

For all those referred for physiotherapy, the length of wait from referral to commencement of physiotherapy treatments ranged from 0 to 28 weeks with a mode of 2 weeks and a median wait of 3 weeks (SIQR 2.5). 10.8% of patients had no wait at all. 90.3% were seen within 11 weeks and 66.9% within 4 weeks (see table 11a).

For those who were discharged normally, their wait for physiotherapy treatment ranged from 0 weeks to 26 weeks with a mode of 2 weeks and a median wait of 3 weeks (SIQR 2.5). 11.7% of patients had no wait at all, 66.5% were seen within 4 weeks and 89.6% were seen within 11 weeks (see table 11b).

Psychosocial and physical factors impacting on therapy

Scores of 2 or more on the psychosocial and physical factors scale were deemed to have had an impact on treatment in some way. Of all patients referred, the minimum score was 0 and a maximum of 25. The mode score was 7 with a mean of 8.82 (SD 3.76).

33.1% had a score of 10 or more. Only 2.6% had a score of 4 or less indicating the complexity of the majority of patient's problems.

Those who were normally discharged had a minimum score of 1 and a maximum of 25 with a mean score of 8.5 (SD 3.19) and a mode of 7. 2.1% had a score of 4 or less and 29.8% had a score of 10 or more. Otherwise patterns across those normally discharged and all those referred were very similar.

Outcome of referral

Table 12 shows the frequency of outcome of referral for all those referred with low back pain (N=557). As can be seen only 59.8% of patients were discharged normally. Of concern, are the number of patients who were lost to the service due to non-attendance, i.e. 21.4% and the number of patients who required a further consultation with their GP or consultant, i.e. 9.7%, which may indicate that either their condition was too serious for physiotherapy to be effective or that the condition had worsened significantly during therapy.

Other factors influencing outcome

For factors which may have influenced the outcome of referrals for all those referred to physiotherapy see table 13a. Only 43.6% of patients had no other factors likely to influence their outcome, but 14.6% ceased to attend and 15.1% had lifestyle influences which were likely to be detrimental to outcome. As can be seen from table 13b, of those who were discharged normally, the majority had no other factors likely to affect outcome but 18.4% did have possible lifestyle influences which may have had a negative effect on outcome.

Treatment modalities

In the sample audited, patients were exposed to the possibility of up to four treatment combination changes. The first set of treatment combinations for all patients referred are shown in table 14a. As can be seen 73.2% received more than one modality in combination and many received three modalities.

60.2% of patients received joint mobilisations usually in combination with other modalities. The most common combination treatment utilised was mobilisations, active exercise and advice with 27.4% of patients treated in this way. Only 18% of patients received electrotherapy modalities, either singly or in combination with other modalities. 65.8% of patients received some kind of active exercise programme. From table 15a it can be seen that 49.4% of patients went on to experience a change to a second treatment strategy.

Interestingly there was greater reliance within the second treatment strategies on electrotherapy. 33.1% of patients receiving electrotherapy either singly or in combination with other treatments. 26.6% were treated with mobilisations alone or combination. The use of active exercises became more apparent in the second treatment strategy, presumably because severity and irritability of the condition may have decreased or a more vigorous form of management was indicated. Interferential was the most common modality employed with 13.3% of patients receiving it as a lone treatment.

15.9% of the original cohort of referred patients received a third treatment strategy (see table 16a) with active exercises (10.6%), mobilisations, active exercises and advice (10.6%) and traction (10.6%) being the most common modalities used. Table 17 shows the treatment progression for 85 patients who received three treatment strategy changes. See table 18 for a breakdown of those patients who received a fourth treatment strategy.

Treatment strategies for patients undergoing normal discharge

For patients who were normally discharged, the pattern of treatment strategy was similar. In the first treatment strategy (see table 14b) mobilisations, active exercises and advice was again the most commonly employed strategy (32.4%). 65.4% of patients received mobilisations either singly or in combination. Only 15.9% received electrotherapy which was normally given in combination with other modalities such as joint mobilisations. 70.2% of patients received some kind of active exercise regime, either alone but normally in combination with other therapeutic modalities.

50.5% of the normally discharged patients received a second treatment strategy and only 14.7% a third strategy (see table 15b). Of those who received a second strategy, interferential was the most common modality used in 12.5% of cases with ultrasound a close second at 10.7%. 31.6% of patients received electrotherapy modalities singly or in combination and 32.8% received active exercises either alone or in combination.

14.7% of patients who were normally discharged received a third treatment strategy (see table 16b), neurodynamic facilitation (12.2%) and mobilisations, active exercises, advice (10.2%) were the most common modalities employed. It would appear that those normally discharged received a higher proportion of mobilisation treatments than did the whole cohort. It is clear that the normally discharged patients received a greater input of mobilisations, advice and active exercises with less electrotherapy utilised as a first treatment strategy and a greater proportion of patients received active exercises, either alone or in combination. There was also a clear choice of interferential and/or ultrasound as a second strategy and a likelihood of the incorporation of neurodynamics as a third strategy.

Preferred treatment modality by hospital location

Table 19a and 19b shows the preferred treatment modality by each hospital/unit location for all referrals and those normally discharged. Mobilisations in combination with other modalities, in particular active exercises and advice were the most popular modalities as the first treatment of choice by all units for those discharged normally.

Units 2, 4, 5, 6, 7, 8, 9 and 10 all used mobilisations, active exercises and advice more consistently than other modality combinations.

Unit 3 showed a greater preference for mobilisations, traction and active exercises and unit 1 for mobilisations and active exercises. However the number of normal discharges for unit 1 was very small as were those of units 5 and 6.

It would be of interest to know what kind of active exercises were included by the therapists concerned in their treatment strategies. It could be anticipated that re-education of muscle imbalance may have been incorporated as active exercises and not rated separately.

The low use of back classes neurodynamic facilitation and re-education of muscle imbalance was a surprise since the recent research work by Hodges, Hides, Richardson and Jull (1995) and Vicenzino (1994) seems to carry considerable evidence on which to base management strategies for low back pain as does the work by Wright and Vicenzino on the effects of neurodynamics and mobilisations.

The large variety of treatments used and their combination does indicate the wide choice of modalities which are available to the physiotherapist and also the nature and number of variables which are presented by each individual patient in association to their low back pain syndrome, and this gives some indication as to why such a variety of combination strategies are employed. It would seem urgent that research is carried out in order to ascertain the level of and the nature of clinical reasoning processes which the therapists apply in isolating and choosing treatment modalities. It would also seem urgent to explore the ways in which new modalities and new research findings are incorporated into practice in various locations.

Total effort scores

The total effort score for the whole cohort of referred patients ranged from 0 to 119 with a mode of 8 and the median of 20 (SIQR 8.5). For those discharged normally, the range was from minimum of 0 to a maximum of 97 with a mode of 20 and a median of 22 (SIQR 8). This discrepancy is not surprising since there were a number of non attendees in the originally referred group.

Number of treatments

For all those referred for treatment for low back pain, the minimum number of treatments was 0 and the maximum was 24 with a mean of 5 treatments (SD 3.3) and a mode of 4. For those patients discharged normally, the minimum number of treatments was 1 and the maximum was 21 with a mode of 3 and a mean number of treatments of 5.5 (SD 2.7). 57.7% of the population received between 1 and 5 treatments. 37.8% received between 6 and 10 treatments. 3.6% received between 11 and 16 treatments and 0.9% received over 16 treatments.

Frequency of grade of physiotherapist by numbers of patients treated

Figures for the grade of physiotherapist by the number of treatments given to all patients referred for physiotherapy for low back pain are shown in table 20a and for those discharged normally in table 20b. In both cases, case load appears to have been distributed in a comparable way.

Referral source

For referral sources of all those referred for physiotherapy see table 21a. 81.6% of referrals came from GP's and for those discharged normally (see table 21b), 84.8% were referred by their GP's, which may indicate a slightly higher chronicity in this group.

Functional assessment

For details of the functional assessment criteria, see items 15, 16 and 17 of the discharge summary sheet and relevant coding information, appendix 2. The initial functional scores for all patients referred, showed a minimum score of 2 with a maximum of 10, a median score of 8 (SIQR 1.25) and a mode score of 8.

For those discharged normally, the initial functional assessment scores ranged from a minimum of 2 to a maximum of 10 with a median score of 8 (SIQR 1) and a mode score of 8.

Expected functional outcome

The expected functional outcome scores for all those referred showed a minimum of 0 and a maximum of 10, a median of 9 (SIQR 0.75) and a mode score of 9.

The expected functional assessment scores of those discharged normally ranged from a minimum of 5.5 to a maximum of 10 with a median score of 9 (SIQR 1) and a mode score of 9.

The actual functional outcome for those discharged normally ranged from a minimum score of 1 to a maximum of 10 with a median score of 9.5 (SIQR 0.5) and a mode score of 10 indicating a slight underestimation of the functional scores by the therapists concerned.

Grades of physiotherapists and the numbers of treatments given

For those normally discharged, the number of treatments by a grade of physiotherapist is shown in table 22. 60.9% of the total number of patients treated by Junior Physiotherapists received five treatments or less. 56.5% of the total number of referrals treated by Senior I Physiotherapists received 5 treatments or less and 58.7% of those treated by Senior II Physiotherapists also received five treatments or less. The apparent greater economy of treatments per patient given by Junior Physiotherapists is balanced by the notion that Senior Physiotherapists may take on more complex cases. Data for Superintendent Physiotherapists was not analysed due to the small numbers of referred cases treated by Superintendent grades and entered into this audit.

Preferred treatment by physiotherapy grade

Figures for preferred treatment modalities are given only for Junior and Senior I and II grades since the numbers of patients treated by Superintendent grades were very small. Mobilisations, active exercise and advice was the most common treatment strategy employed by all grades. It was utilised by 68.3% of Juniors, 55.7% of Senior II's and 70.3% of Senior I's first treatment strategies.

9.7% of Junior Physiotherapists used traction, however 18.3% of Senior II Physiotherapists used traction within their treatment strategies, only 8.2% of Senior I Physiotherapists used traction alone or in combination. In terms of the use of active exercises, 80.5% of Juniors, 63.4% of Senior II's and 74.5% of Senior I's include active exercises in their treatment strategies. These figures also include defined groupings of muscle imbalance and muscle re-education.

Electrotherapy which included the use of short wave diathermy, ultrasound, interferential and infra-red was used by 7.3% of Juniors, 16% of Senior II's and 19.3% of Senior I's. Surprisingly, advice and education were prominent in 65.9% of Junior Physiotherapist's strategies in only 49.6% of Senior II strategies and in 69% Senior I physiotherapy strategies.

The variation of modalities offered by different grades was interesting. The low use of electrotherapy by Junior Physiotherapists may show the effect of recent dissemination of research findings in institutes of higher education to students and thus more junior members of staff, but would also indicate more knowledge of recent clinical guidelines which suggests emphasis should be placed on more active treatment regimes. This is also reflected in the more apparent use of active exercises by junior staff. The high use of mobilisations and advice also indicates possible changes of emphasis within physiotherapy undergraduate programmes in recent years where it is more of a norm to incorporate manual therapy techniques into the curriculum and also to introduce the concepts of muscle imbalance and neurodynamics. The high level of usage of mobilisations by Senior I therapists could indicate considerable postregistration activity by these members of staff. The lower usages of advice, education, mobilisations and active exercises by Senior II physiotherapists may seem to indicate the need for more professional development courses within this group. The high use of traction by Senior II physiotherapists might at first appear to be out of step with the clinical patterns seen in Junior and Senior I staff but it should be noted that traction in combination with other modalities was the most commonly used strategy by unit 3 which may have reflected a speciality in orthopaedic manual therapy.

Patient perceived pain

For all those discharged normally, patients perceived pain at examination and prior to commencement of physiotherapy treatment was rated on a digital analogue scale of 0 to 10. Patients produced a mode score of 8 and a median score of 6 (SIQR 1.5). 85.4% of patients rated their pain at 4 or above.

After physiotherapy, those discharged normally rated their pain levels in the range of 0 to 10 with a mode score of 0, the median score 1 (SIQR 1.25), 90.3% had pain rated at 4 or less. These figures show a profound decrease in pain levels across the normally discharged patient cohort.

Functional ability

Patients perceived functional ability on examination prior to commencement of physiotherapy ranged from 0 to a maximum of 10 with a mode score of 8. A median score of 7 (SIQR 1.5) was achieved. 43% of patients had functional ability scores of 8 or more. 10.1% were functioning normally at the time of assessment.

Following treatment functional ability treatment scores ranged again from 0 to 10 with a mode score of 10, a median score of 9.5 (SIQR 1). 48.5% of patients were functioning at a normal level, 87.1% had a functional score of 8 or more, again showing a profound increase in overall functional ability.

Ability to work

On examination, patients ability to work ranged on a digital scale from 0 to 10 with a mode score of 10, a median score of 7 (SIQR 2.5). 45% had an ability to work of 8 or more before treatment commenced and 16.4% were able to work normally.

Following treatment, patients ability to work again ranged from 0 to 10 with a mode score of 10, a median score of 10 (SIQR 1). 84.9% had scores of 8 or more and 57.2% were working normally, again showing a profound increase in patients ability to work following treatment.

However, it should be remembered that 20.3% of patients discharged normally were retired and therefore these scores should be looked at within this perspective. It should also be remembered that because of the nature of low back pain, the multiplicity of variables affecting it and the lack of control subjects in an audit study, that it is difficult to know how much change in pain levels, functional ability and work ability were due to spontaneous recovery.

Goal achievement for those normally discharged

The goal achievement indicates an achievement of goals relating to pain decrease, joint range increase, ability to work increase and functional ability increase together with a coding for the number of treatments taken to achieve the stated goals. The mode goal achievement score overall was 5. Goals were exceeded fully or significantly achieved in 1-5 treatment, in 54.3% of patients and in 6-10 treatments by 34.2% of patients giving a total of 88.5% who exceeded, fully achieved or significantly achieved their goals within 1-10 treatments. Goals were only partially achieved in 4.2% and were not achieved in only 0.9%.

Goal achievements by units of location

For goal achievements by units of location - see table 23.

For units 2, 3, 4, 5, 6, 7, 8 and 10 the most common goal achievement was 5. i.e. goals fully achieved in 1-5 treatments.

For unit 9, the commonest goal achievement was 6 with just one more patient assigned to this group than the number in group 5. (ie. goals fully achieved in 6-10 treatments)

It was encouraging to see patients were exceeding the goals set particularly in unit 8 and 4. This could of course have implications for the standard of goal setting since it is easier to exceed goals if goals are set at a lower level than would be realistically expected.

Unit 1's scores were equally shared between goal achievement categories 5 and 6. The frequencies are given below for unit locations in fully achieving and exceeding goals.

Unit 1	22.2%
Unit 2	40.4%
Unit 3	37.4%
Unit 4	34.9%
Unit 5	54.6%
Unit 6	53.3%
Unit 7	39.6%
Unit 8	47.2%
Unit 9	21.9%
Unit 10	27.9%

It is worth noting that some units had many fewer patient referrals included in the audit than other units and therefore it is very difficult to make comparisons based on the small number of returns.

Effort scores versus number of treatments

The most recurring effort score was 8 in the 28 patients who were successfully treated in 1-5 sessions. The majority of patients treated in 1-5 treatments had effort scores ranging from 6 to 30. The full range was from 1 to 105. Effort scores for those receiving 6-10 treatments ranged from 0 to 75. The majority of patients receiving 16 treatments or more had effort scores of 52 or above and those who received between 11-15 treatments, effort scores were mainly over 35. These figures can be clearly explained in view of the increased numbers of contact times.

Changes in functional ability

1.2% of the normally discharged population had a decreased functional ability. 6.9% had no change in their functional ability scores and 91.9% had increased their functional ability at discharge. The change in functional ability score most frequently occurring was 1, which occurred in 28.7% of cases. The majority of patients in this category were treated with mobilisations, advice and active exercises. Mobilisations, advice and active exercises was also the most common strategy employed with patients whose functional ability increased by 1.5 to 2.5, 3 and 3.5. The most common modality combination used in patients who improved their score by 4 was mobilisations, traction and active exercises (see table 24).

Change in functional ability by outpatient unit location

For full details, see table 25 summarising the information.

As can be seen from the table, unit 6 had the greatest number of patients who showed no change in functional ability. 53.3% of patients treated in unit 6 show no change. However, it should be noted that unit 6 also submitted a low number of data sets to the audit return. Units 1, 2, 4, 7 and 10 all showed patients who had worsened in terms of functional ability during treatment but they were a very small percentage of the units totals. For those units entering over 40 patients data sets to the audit, the percentage of patients experiencing no change in functional ability was around 15%. Unit 10 showed the greatest variation in change in functional ability scores. In general most units returned positive changes of between 0.5 and 4 on a digital scale.

Frequency of change of functional ability by grade of physiotherapist

A summary of the data is shown below in table 26.

	Junior Physiotherapist	Senior II	Senior I
Worse	3.5	1.1	1.5
No change	17.5	15.5	19.6
Improved	79.0	83.4	78.9
Total	100	100	100

For Junior staff, 26.3% of their patients improved by a functional ability of 2 or more. For Senior II's, 37.8% of their patients improved by 2 or more and for Senior I's, 33.67% of their patients improved by 2 or more. However, it must be remembered that on initial examination, 23.5% of patients had a score of 9 or above in terms of functional ability and therefore these patients would have been unable to improve their score by 2 or more.

Achievement of set standards

Standards are described only in terms of those patients who were discharged normally.

1. **80% of patients perceived pain levels are reduced by 4 at discharge using a digital analogue scale.**

22.1% of patients who are normally discharged were experiencing pain of 4 or less on initial examination prior to physiotherapy treatment with a median score of 6 (SIQR 1.5).

Following treatment 90% of patients were experiencing pain levels of 4 or less using a digital analogue scale with a median score of 1 (SIQR 5). 61.3% of the patient cohort had perceived pain levels reduced by 4 or more on the digital analogue scale with a median reduction of 4.266 (SIQR 1.5) with a mode of 5 and therefore the standard has not been met.

2. **95% of patients perceived functional ability to have increased by 2 at discharge using a visual analogue scale.**

33% of the patient cohort were experiencing functional levels of 8.0 or above prior to treatment commencing with a median score of 7 (SIQR 1.5).

Following treatment 87.1% of patients were experiencing functional ability levels of 8 or more with a median score of 9.5 (SIQR 1). 55.5% had achieved an increased functional ability by 2 or more with a median increase of 2 (SIQR 1) and a mode score of 1. Therefore this standard has not been achieved.

3. **95% of patients perceived ability to work has increased by 3 at discharge on a visual analogue scale.**

45% of patients had ability to work rated at 8 or above before treatment with a median score of 7 (SIQR 2.5). Following treatment 84.3% had an ability to work rated 8 or above with a median score of 10 (SIQR 1).

39.6% of patients had their perceived ability to work increased by 3 or above with a median increase of 2 (SIQR 2) and a mode score of 0. Therefore the standard has not been achieved.

NB. 20.3% of the cohort who were normally discharged were retired and therefore may not have rated their improvement in terms of ability to work since working was not a requirement.

4. **The goals agreed with the patient are fully achieved or exceeded by 40% of patients within 10 treatments.**

68.4% of patients fully achieved or exceeded goals within 10 treatments.
43.5% of patients fully achieved or exceeded goals within 5 treatments,
therefore the standard has been successfully met.

These standards were set using information gathered in the outcome measurement work by Moore (1996) and the clinical experience of those involved in the audit management group.

Reflections on the audit process

In hindsight, the author of the report offers some reflections on the process, on the basis of her participation in the audit management group, and from discussions held with participants in the audit.

1. It would have been useful to have conducted a feasibility study in each unit location prior to commencement of the audit in order to establish the likely size of the population.
2. It would have been useful to hold a meeting with representatives from each unit following the pilot period in order to deal with issues which had occurred during the pilot period, and discuss this in open forum so that participants could have benefited from the experience of their peers. This would also have been a suitable time to make modifications to the audit tool prior to the commencement of the main audit.
3. A written commitment should have been required by each participating unit in order to guarantee the size of the population and for agreement to be made for dates of returns of data sets.
4. All parties should have been more fully informed of and changes to deadlines.
5. More time should have been built into the project for reflection by the management group and also the unit representatives.
6. The enthusiasm, interest and expertise of staff of participating units could have been utilised more in the initial stages of the project. Their input was highly valued towards the end of the current audit and at the beginning of the next audit phase.
7. There is a need to phase audit periods flexibly to allow for harmonisation with staff rotational periods.
8. Site visits by workshop facilitators were deemed very important and it was determined that all staff participating in the audit should have attended a workshop in order to standardise completion of the summary sheets.
9. Various comments were received about the audit tool towards the end of the audit process in terms of its relevance specifically for spinal conditions:
 - a. Goal achievement scores need to be made more sensitive
 - b. Some form of quality of life scales should be included
 - c. Psychosocial factor categories need separating in order to give more specific information and a descriptive text field added to provide further information
 - d. A section on access to physiotherapy departments and ethnicity should be included in the next audit
 - e. More instructions were needed on the completion of the effort score section and definitions of advice and education should be provided
 - f. Functional scores should be reworded specifically for spinal problems

Recommendations for future investigation and/or research activity

1. A large number of data was missing from the summary sheets of those patients who were referred for physiotherapy treatment. The issue of failure to complete fully audit sheets needs to be addressed in some way. This may relate to difficulties some staff had with the audit tool or it may be a manifestation of administrative and record keeping problems.
2. The wasting rate in terms of non attendance for appointments in patients lost to the service needs urgent investigation by all units.
3. The nature of active exercises included in treatment strategies needs to be investigated to ensure that theories of muscle imbalance are being incorporated into strategies.
4. Concerns are raised over the number and variation of treatment strategies employed and there is urgent need for guidelines relating to the assessment of low back pain and cohesive strategies with which to deal with it. This may indicate more training is required in terms of clinical reasoning processes.
5. It was surprising to see Senior II physiotherapists were using very little in the way of neurodynamics and muscle imbalance. They also less frequently use mobilisations than other grades. It would be important to investigate whether this is a strategy of choice or whether it is due to lack of training and education.
6. The low use of neurodynamics and muscle imbalance across all grades was surprising and this issue could do with addressing in the short term in relation to additional training needs.
7. It may be that peer review of clinical reasoning processes should take place together with peer review of functional and goal achievement scoring predictions.
8. The standard levels for pain reduction, increase in ability to work and increase in functional ability are clearly set at too high a level to be achievable. It is suggested that standards are reworked to reflect the frequency of patients achieving actual scores rather than frequency of alterations in scores, or to simply reduce the level of the original standards.

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Physiotherapy OPD
Mid Kent Healthcare Trust
DISCHARGE SUMMARY SHEET

1. Unit Location of O.P.D.	<input type="text"/>		
2. Occupation	<input type="text"/>	Surname	<input type="text"/>
3. Patient Identification No	<input type="text"/>		
4. Date of Birth	<input type="text"/>	5. Age	<input type="text"/>
		6. Gender	<input type="text"/>
7. Primary Diagnosis (I.T.C.D.)	<input type="text"/>		
8. Secondary Diagnosis (Physiotherapy)	<input type="text"/>		
9. Tertiary Diagnosis	<input type="text"/>		
10. Body Site	1. <input type="text"/>	2. <input type="text"/>	3. <input type="text"/> 4. <input type="text"/>
11. Laterality of Symptoms	<input type="text"/>	12. Date of Referral	<input type="text"/>
13. Date of Commencement	<input type="text"/>		
14. Length of Wait from 1st GP contact to Referral (in Weeks)	<input type="text"/>		
15. Length of Wait from Referral to Commencement of PT (in weeks)	<input type="text"/>		
16. Reason for Referral	<input type="text"/>		
17. Weighting of Psycho-social and Physical Factors	<input type="text"/>		
18. Initial Assessment of Functional Ability	<input type="text"/>		
19. Assessment of Expected Functional Outcome	<input type="text"/>		
20. Actual Functional Outcome Score	<input type="text"/>		
21. Date PT terminated	<input type="text"/>		
22. Outcome of Referral	<input type="text"/>		
23. * Treatment Details	<input type="text"/>		
24. Total Effort Score	<input type="text"/>		
25. Goal Achievement at Discharge	<input type="text"/>		
26. Other Factors Influencing Outcome	<input type="text"/>		
27. Number of Treatments	<input type="text"/>		
28. Physiotherapist	<input type="text"/>	29. Grade	<input type="text"/>
		31. Referral Source	<input type="text"/>

30. Patient Perceived

PainFunctionAbility
to Work

At initial examination

At completion of treatment

1. Unit location of O.P.D. Hospital Pat ID
2. Occupation 3. Study ID No 4. Date of Birth
5. Gender 6. Episode
7. Secondary diagnosis (Physiotherapy) _____
8. Body site 1. 2. 3. 4.
9. Laterality of symptoms 10. Date of referral
11. Date of commencement
12. Length of wait from 1st GP contact to referral (in weeks)
13 Length of wait from referral to commencement of PT (in weeks)
14. Weighting of Psycho-social and physical factors
15. Initial assessment of Functional Ability
16. Assessment of Expected Functional Outcome
17. Actual functional Outcome Score
18. Date PT terminated
19. Outcome of referral _____
20. Treatment details
21. Total Effort Score
22. Goal achievement at discharge
23. Other Factors influencing outcome
24. Number of treatments 25. Grade of Physiotherapist
26. Patient perceived
Initial examination
Pain Function Ability to work
At completion of treatment
Pain Function Ability to work
27. Referral source

CODINGS FOR DISCHARGE SUMMARY SHEETS

1. Unit/Location of O.P.D.

1	6
2	7
3	8
4	9
5	10

2. Occupation

1	= Professional
2	= Employer/Manager
3	= Intermediate & junior non manual
4	= Skilled Manual & own account non professional
5	= Semi skilled manual and personal service
6	= Unskilled manual
7	= Unemployed (more than 2 years)
8	= Retired (if more than 2 years)
9	= Housewife /husband if more than 2 years)
10	= School person
11	= Student

NB Use categories 1 - 6 if employment ceased for less than 2 years for reasons stated in 7 - 9.

3. Study ID No.

4. Date of Birth

5. Gender

1	= Female
2	= Male

6. Episode

1	= 1st episode
2	= recurrent

7. Secondary Diagnosis

10	= Respiratory
20	= Neurological
21	= UMN
22	= LMN
30	= Surgical
31	= Pre Op
32	= Post Op
40	= Medical
50	= Neuro Musculo Skeletal
51	= Traumatic

52	=	Degenerative
53	=	Inflammatory
54	=	Pathological
55	=	Postural
56	=	R.S.I.
60	=	Obstetrics & Gynaecology
61	=	Stress Incontinence
62	=	Unstable Bladder
70	=	Dermatological
80	=	Oedema
90	=	Stress

8. Body Site Codes (use more than 1 code if appropriate)

Head	01	
Neck	02	
Neck + Referral	03	
Thoracic	04	
Thoracic + Referral	05	
Lumbar	06	
Lumbar + Referral	07	
Sacroiliac	08	
Shoulder	09	
Shoulder Girdle	10	
Upper Arm	11	
Elbow	12	
Forearm	13	
Wrist	14	
Hand	15	
Finger	16	
Thumb	17	
Hip	18	
Thigh	19	
Knee	20	
Lower Leg	21	
Ankle	22	
Foot	23	
Chest	24	
Abdomen	25	
Upper Limb	26	
Lower Limb	27	
Whole Body	28	
Multiple Regions	29	
Skin	30	
Nerve	31	
TMJ	32	
Face	33	
Pelvic Floor	34	
Bladder	35	
Ribs	36	
Coccyx	37	
Other	38	
Lumbar + Neuro signs	39	(ie dermatomal and/or myotomal and/or reflex loss)

9. Laterality of Symptoms

Unilateral	=	1
Bilateral	=	2

10. Date of referral

11. Date of commencement
12. Length of wait from 1st GP contact to referral (in weeks)
13. Length of wait from referral to commencement of PT (in weeks)
14. Weighting of Psycho-social and physical factors

	1	2	3	4	5	
		Mild	Moderate	Quite Severe	Severe	TOTAL
1. Problem						
2. Communication /Sensory						
3. Mobility						
4. Other Conditions						
5. Social Circumstances						
Categories 2 - 5 should all have a direct impact on ease or difficulty of Physiotherapy treatment						GRAND TOTAL

MAXIMUM POSSIBLE TOTAL SCORE = 25
 MINIMUM POSSIBLE TOTAL SCORE = 0

Items 15, 16 and 17 on the Summary Sheet: Functional, Physical and Subjective Outcomes

Scores should be completed by the Therapist and also by the patient for the initial assessment of functional ability, the expected functional outcome and the actual functional outcome.

- 10 = Normal lifestyle, fully independent, able to work, no pain or disability, participate fully in sporting activities. Joint range equivalent to 90/100% of available active physiological movement. Normal healthy individual.
- 9.5
- 9 = Independent, able to work but some slight discomfort or dysfunction. Not able to carry out competitive sport but is able to attend and participate in training sessions. 80/90% of normal active physiological movement range is available.
- 8.5
- 8 = Independent to a large degree without walking aids. Able to return to non manual work but only to modified manual work. Very modified sports training is accomplished. Some aspects of ADL slightly restricted. Some

mild pain present for periods during the day. Joint range restricted to between 70% and 80% of normal available range.

7.5

7 = Mobile with minimum support and walking aid. e.g. walking stick. Able to return to non manual work part time but not to manual work. Some general marked functional limitation. 60% - 70% of normal active physiological range of movement is available in one or more limbs or region. Mild to moderate pain levels exist.

6.5

6 = Unable to work due to moderate pain levels and disability. Marked functional limitation in one limb or region. 50% - 60% of normal active physiological range of movement is available.

5.5

5 = Able to carry out most ADL but needs occasional help. Dependent upon aids for mobility but walks unsupervised. Unable to work. Moderate limitation of joint range with 40% - 50% of the normal active physiological range of movement available. Moderate pain levels with some postures and/or at rest.

4.5

4 = Independent for some ADL but needs some help either by one professional or by one lay person for one or more activities. Walks with an aid and standby supervision. Severe limitation of joint range between 30% to 40% of normal active range of movement is available. High levels of pain on movement.

3.5

3 = Performs minimal ADL with help. Needs moderate physical help with walking and transferring. i.e. uses a walking aid and one helper. Has severe pain at rest worse with movement. Active range of movement is limited to 20% to 30% of normal range of movement available.

2.5

2 = Dependent on help for most ADL due to mental or physical disabilities. e.g. following multiple injuries. Unable to walk or needs maximal help i.e. two helpers. Active range of physiological movement is limited to zero or has less than 20% of range available.

1.5

1 = Totally dependent, helpless, unable to perform any ADL, e.g. Unconscious.

18. Date PT terminated

19. Outcome of Referral

Inappropriate referral	01
Treatment not commenced (department informed)	02
Treatment not commenced (department not informed)	03
(D.N.A.)	03
Treatment interrupted (F.T.A)	04
Department not informed	04
Treatment interrupted (U.T.A.)	05
Department informed (Includes self discharges)	05
Transferred within district	06
Transferred outside district	07

Assessment completed no Physiotherapy required	08	
Assessment completed. Advice re self care given		
Review arranged	09	
Treatment completed. Regular discharge	10	
Died	11	
Referred back to GP/Consultant	12	
Patient non compliant	13	
Physiotherapy not effective	14	
Other		
	15	
20. Treatment Details		
Advice re self management or advice to carer	01	
Interferential	02	
S.W.D.	03	
TENs	04	
Ultrasound	05	
Local heat (I.R. packs pad)	06	
Active exercises	07	
Passive exercises	08	
Traction	09	
Mobilisations/manipulation	10	
Reflexology	11	
Aromatherapy	12	
Ice	13	
Hydrotherapy	14	
Wax	15	
Faradism	16	
Massage	17	
Frictions	18	
C.T. Massage	19	
Strapping	20	
Education	21	
Appliance fitting	22	
Ultra violet	23	
Laser	24	
P.N.F.	25	
Electro diagnosis	26	
Facilitatory/re-education techniques	27	
Gait re-education	28	
Re-Education of Muscle Imbalance	29	
Neuro dynamic facilitation	30	
Active exercises and advice	31	
Mobilisations and active exercises	32	
Frictions and Ultrasound and S.W.D.	33	
Mobilisations, active exercises and advice	34	
Mobilisations, traction and active exercises	35	
Mobilisations and advice	36	
Mobilisations, passive exercises and S.W.D.	37	
Mobilisations, Ultrasound, S.W.D. and advice	38	
S.W.D., active exercises, passive exercises and mobilisations	39	
Active and passive exercises and advice	40	
Mobilisations, S.W.D. and education	41	47 Trigger pt release
Re-education of muscle, active exercises, mobilisations and advice	42	soft tissue stretches
Active exercises, education and advice	43	48 Back School
Mobilisations, advice and Ultrasound	44	49 Back rehab class
S.W.D., active exercises and advice	45	
Acupuncture	46	

21. Total Effort Score (O.P.D. only)

<u>Activity</u>	<u>Approx Time Taken</u>	<u>Score</u>
Patient Interview no treatment, short letter	5 mins	1
US/IR/SWD/Laser Traction/TNS/Trophic Stimulation/Mobilisations/ Exercises/Thoraktin/Normal Administration /Wax	10 mins	2
Acupuncture/IF/Mobilisations Traction	15 mins	3
Mobilisations/UVR Education/Advice	15 mins	4
Mobilisations/simple peripheral joint examination & assessment	20 mins	5
Moderately complex peripheral joint examination & assessment	20 mins	6
Complex peripheral joint examination & assessment	30 mins	7
Simple neck/back/shoulder examination & assessment. Basic neurological treatment e.g. Brachial Plexus, lesion, facial palsy	30 mins	8
Moderately complex back/neck/shoulder examination & assessment Complex Brachial plexus lesion	45 mins	9
Complex back/neck/Shoulder/neurological examination	60 mins	10

1 extra point for each extra member of staff involved in the treatment

1 extra point for each extra modality e.g. simple mobilisations
+ U.S + exercises = 4

Classes

60 min class 12) then divide by the number of patients
90 min class 18)

If more than one Physiotherapist involved then double class score i.e. 2 Physiotherapists doing 1 hour class with 12 patients each patient scores 2.

Effort is a mixture of:-

Knowledge application	Skill application
Vigour	Time expended
Self motivation	Physical and mental exertion
Strength	Concentration
Conviction	Motivation of others

Effort is graded 1 - 10 and is recorded at the end of each contact with the service as the clinical records are updated. Total effort score for whole treatment period is recorded on discharge sheet.

22. Goal Achievement at Discharge (in terms of patient and therapist goal achievement)
 Note: goals should include pain, range of movement, function, patient's interpretation of subjective perceived improvement and the ability to work.

a. -	Goals exceeded	[	1 - 5	Treatments	1
		[	6 - 10	Treatments	2
		[	11 - 15	Treatments	3
		[	16 +	Treatments	4

When the goal/outcomes expected at the initial assessment have been surpassed by the actual achievements attained by the patient, i.e. symptom free, increased range of movement compared to other limb before incident, function better than before. Able to work fully.

b. -	Goals fully achieved	-	1 - 5	Treatments	5
		-	6 - 10	Treatments	6
		-	11 - 15	Treatments	7
		-	16 +	Treatments	8

All goals/outcomes achieved to 100%. i.e. symptom free, full range of movement, no pain, function as before incident. 100% perceived improvement. If during assessment it is clear that advice only is needed or that the aim of intervention was to assess mobility and this is achieved then the goal is fully achieved. A non physiotherapy goal may be set e.g. to involve other agencies, if this is done then the goals are fully achieved. Also, if goal was to achieve 80% recovery at discharge, for the patient to achieve 100% recovery with appropriate home management strategy, then goals have been fully achieved.

c. -	Goals significantly achieved	[	1 - 5	Treatments	9
		[	6 - 10	Treatments	10
		[	11 - 15	Treatments	11
		[	16 +	Treatments	12

When 50% or more of the agreed goals are achieved or the patient is half way to the expected outcome, i.e. there may be a 50% improvement in subjective and objective findings, one or more problems still present but are resolving slowly but majority of problems have already been resolved. Patient able to work in a restricted or modified way.

d. -	Goals partially achieved	[	1 - 5	Treatments	13
		[	6 - 10	Treatments	14
		[	11 - 15	Treatments	15
		[	16 +	Treatments	16

Less than 50% of the goals set are achieved, there is minimal improvement of subjective and/or objective findings based on the initial assessment, some problems still outstanding, some initial improvement which has failed to continue. Patient unable to work but will manage some domestic tasks and contemplate return to work in a highly modified way.

e. -	Goals not achieved	-	1 - 5	Treatments	17
		-	6 - 10	Treatments	18
		-	11 - 15	Treatments	19
		-	16 +	Treatments	20

No change in the objective or subjective finding, inappropriate goals set and were not a measure of true potential, or when goals were not met due to influences outside the therapists control the reasons for this should be linked with the other factors and stated in the patient's notes. In all circumstances the signs and symptoms for this group of patients functions will have remained static. Patient unable to contemplate work.

f. -	Other i.e. worse poor referral additional problems etc	-	1 - 5	Treatments	21
		-	6 - 10	Treatments	22
		-	11 - 15	Treatments	23
		-	16 +	Treatments	24

Any eventualities not covered in the above sections use 'other factors' as a linkage and state what other factors were involved in the patient's notes. In this circumstance there may have been increase in local pain, decreased range of movement, increased local swelling, the development of referred pain and/or decreased function. Reduced and/or inability to work. In the assessment of goals between the therapist and the patient a linear visual analogue could be used using the 10 cm line, 0 - 10 for pain, range of movement, function, subjective improvement and the ability to work.

23. Other Factors Influencing Outcome in terms of rate/nature of recovery

1. Pain free at first visit.
2. Inappropriate referral.
3. Re-referred to consultant or GP
4. Other medical intervention, e.g. drugs, injection, osteopath, chiropracter, homeopath, collar, corset, surgery, etc.
5. General state, e.g. compensation case, stress levels, level of intelligence, attitude of patient, motivation, social circumstances, understanding of condition, smoking, drinking, etc.
6. Lifestyle influences, e.g. job, home circumstances, age, sport, etc.
7. Other medical conditions, e.g., cardiac.
8. Time, natural progression of condition, lack of treatment, e.g. patient moves from the area or is unwilling to attend for treatment.
9. Ceased to attend.
10. Requires educational advice only.
11. Teamwork.
12. Transfer to another hospital.
13. RIP.
14. No other factors.
15. Exacerbation of condition

24. Number of Treatments

25. Physiotherapist Grade

1. = Junior
2. = Senior 2
3. = Senior 1
4. = Superintendent IV
5. = Superintendent III
6. = Superintendent II
7. = Superintendent I
8. = Student

26. Patient Perceived Pain, Function and Ability to Work

Instructions to therapists on the completion of patient perceived pain levels, functional ability and ability to work.

The patient is asked to indicate their level of pain, functional ability and ability to work before treatment commences and when treatment is terminated. In order for this outcome measure to be reliable it is important that all patients are asked for information in the same way. The following statement should be made by all therapists in respect of each patient that they assess:-

"In order to monitor the effectiveness of your treatment, it is important that we find out about your levels of pain, your functional ability and your ability to work at the present time. Please choose a number on the scale of 0 to 10 which indicates:-

1. *Your present level of pain when it is at its worst where 0 = the least amount of pain you could envisage and 10 = the worst pain that you could imagine.*
2. *Ability to work where 0 = complete absence of ability to work and 10 = working normally.*
3. *Functional ability where 0 = total absence of ability to carry out functional tasks at home and in the social setting and 10 = maximum or normal ability to carry out functional tasks."*

The questions are asked again on completion of physiotherapy treatment.

27. Referral Source

- | | | |
|---|---|--------------------------|
| 1 | = | General Practitioner |
| 2 | = | Consultant |
| 3 | = | Orthopaedic Practitioner |
| 4 | = | Other |

Table 1a Frequency of referrals to each physiotherapy unit - All referrals

OPD LOCATION	Number	Percent
1	18	3.2%
2	54	9.6%
3	43	7.7%
4	84	14.9%
5	14	2.5%
6	24	4.3%
7	72	12.8%
8	73	13.0%
9	41	7.3%
10	139	24.7%
Total	562	100.0%

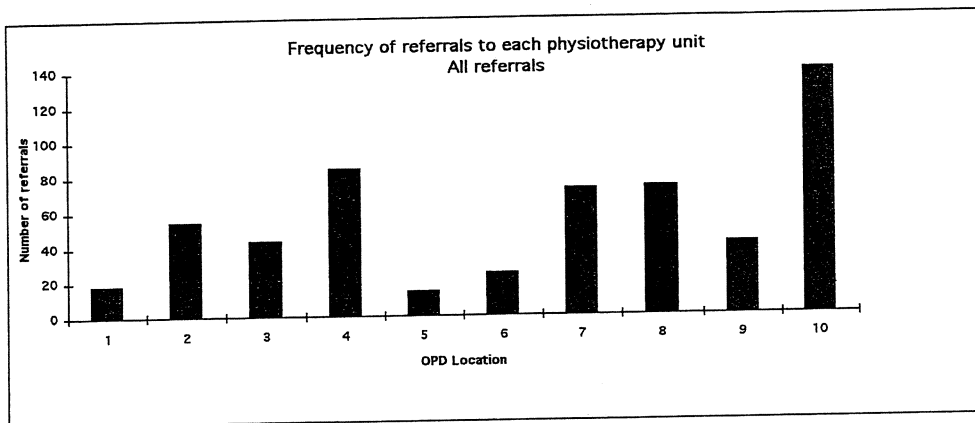


Table 1b Frequency of referrals to each physiotherapy unit - Patients discharged normally

OPD LOCATION	Number	Percent
1	11	3.3%
2	40	12.1%
3	22	6.6%
4	38	11.5%
5	6	1.8%
6	9	2.7%
7	46	13.9%
8	55	16.6%
9	24	7.3%
10	80	24.2%
Total	331	100.0%

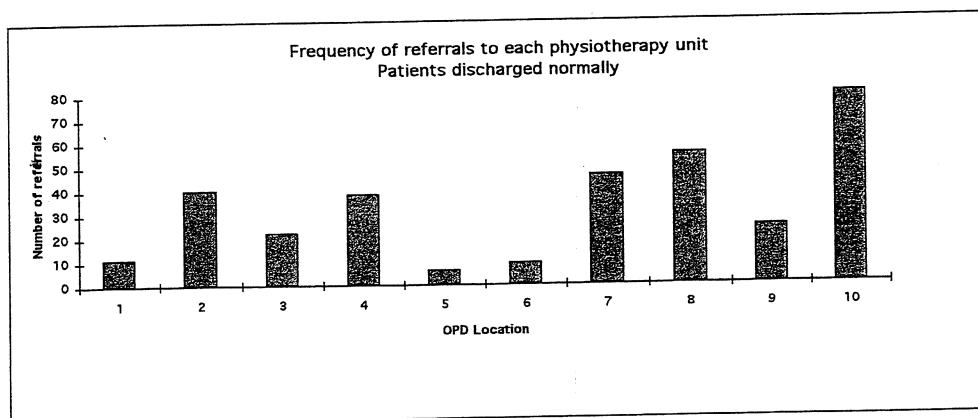


Table 2a Frequency of referrals by age group - All referrals

AGE GROUPS	Number	Percent
0-9	2	0.4%
10-19	15	2.7%
20-29	85	15.4%
30-39	119	21.6%
40-49	105	19.1%
50-59	101	18.3%
60-69	63	11.4%
70-79	49	8.9%
80-89	12	2.2%
Total	551	100.0%

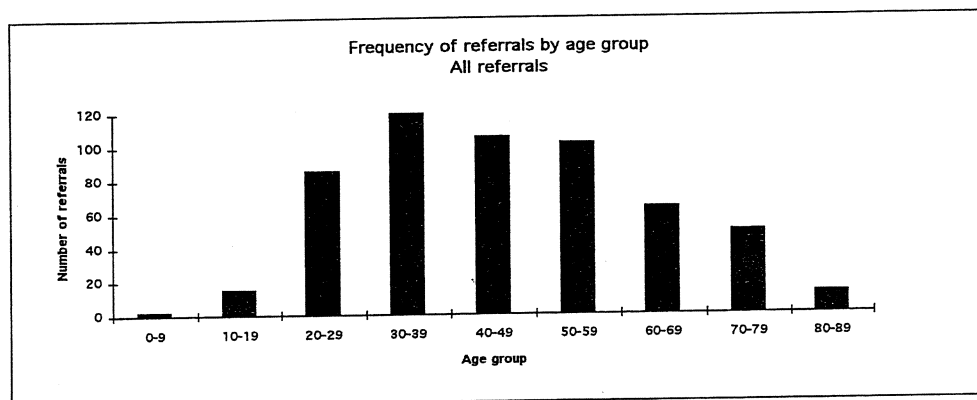


Table 2b Frequency of referrals by age group - Patients discharged normally

AGE GROUPS	Number	Percent
0-9	2	0.6%
10-19	8	2.4%
20-29	43	13.1%
30-39	62	19.0%
40-49	58	17.7%
50-59	64	19.6%
60-69	46	14.1%
70-79	36	11.0%
80-89	8	2.4%
Total	327	100.0%

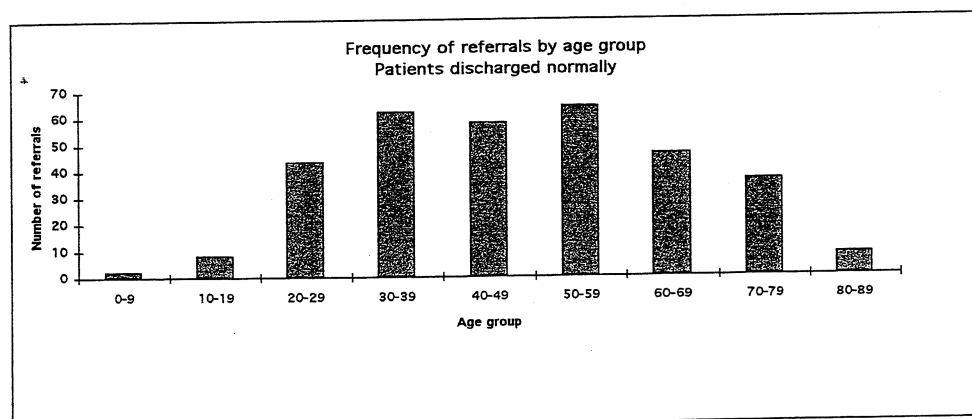


Table 3a Frequency of referrals by gender - All referrals

GENDER	Number	Percent
FEMALE	314	55.7%
MALE	250	44.3%
Total	564	100.0%

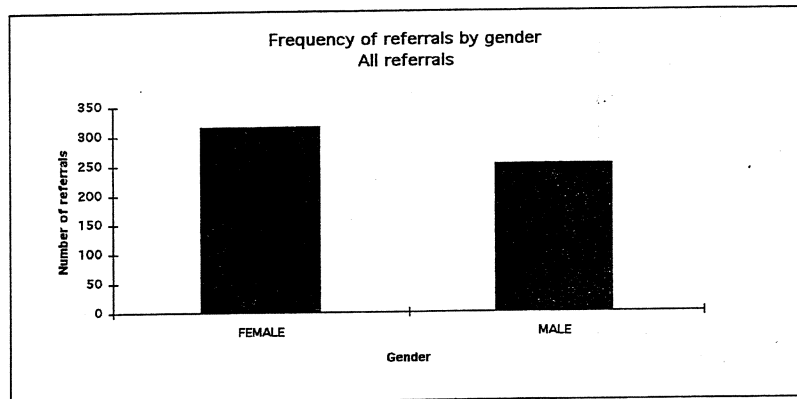


Table 3b Frequency of referrals by gender - Patients discharged normally

GENDER	Number	Percent
FEMALE	188	56.5%
MALE	145	43.5%
Total	333	100.0%

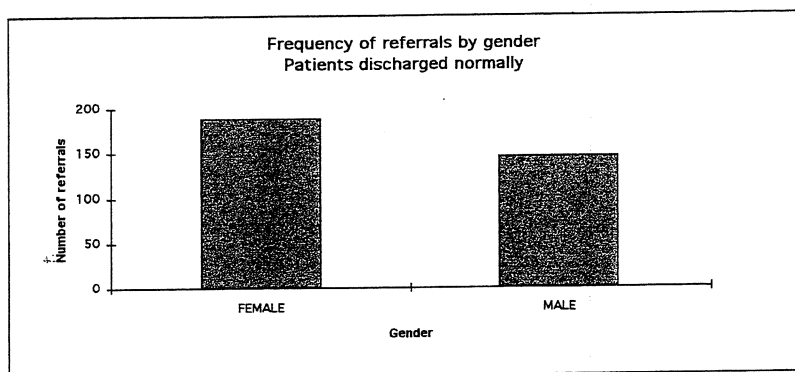


Table 4a Frequency of referrals by gender and age group - All referrals

AGE GROUP	FEMALE	MALE	TOTAL
0-9	1	1	2
10-19	12	3	15
20-29	43	42	85
30-39	69	50	119
40-49	49	56	105
50-59	60	41	101
60-69	31	32	63
70-79	34	15	49
80-89	6	6	12
Total	305	246	551

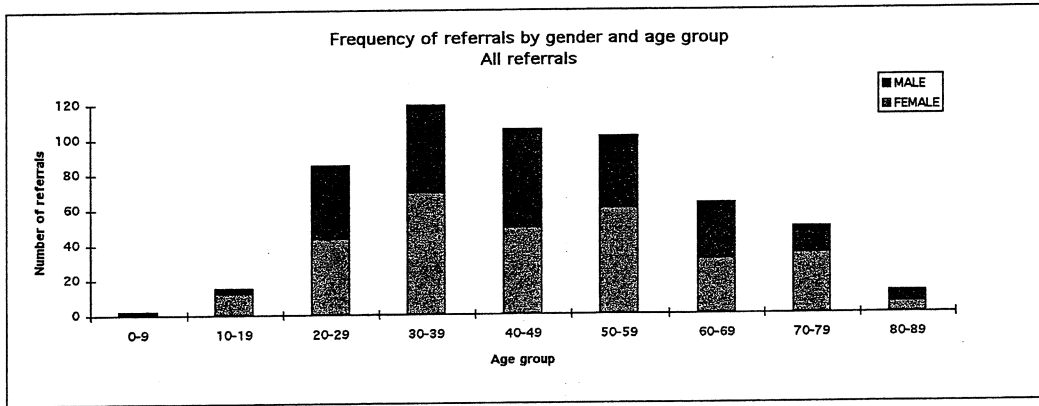


Table 4b Frequency of referrals by gender and age group - Patients discharged normally

AGE GROUP	FEMALE	MALE	TOTAL
0-9	1	1	2
10-19	7	1	8
20-29	22	21	43
30-39	38	24	62
40-49	26	32	58
50-59	39	25	64
60-69	22	24	46
70-79	25	11	36
80-89	3	5	8
Total	183	144	327

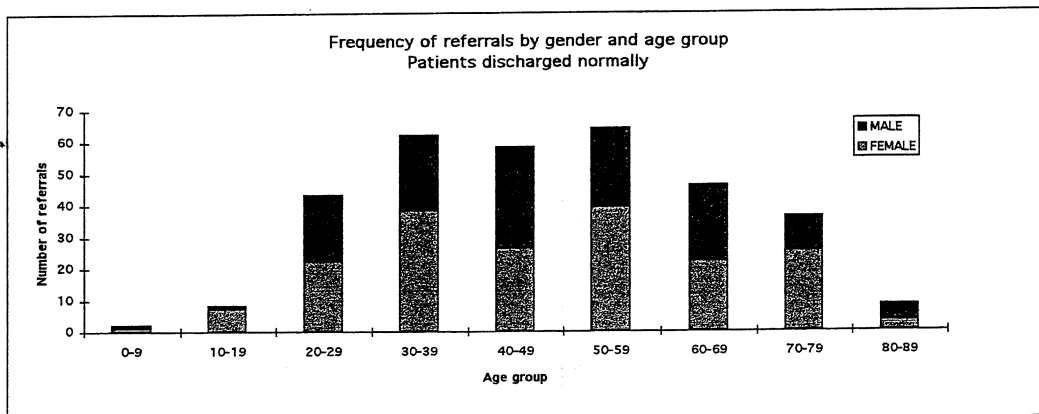


Table 5a Frequency of referrals by occupation - All referrals

OCCUPATION	Number	Percent
EMPLOYER/MANAGER	26	5.2%
H.WIFE/FATHER> 2YRS	59	11.8%
IMED & JR NON MANUAL	30	6.0%
PROFESSIONAL	50	10.0%
RETIRED IF > 2YRS	86	17.2%
SCHOOLPERSON	6	1.2%
SEMI SKILL & P SERV	82	16.4%
SKILL MAN & NON PROF	68	13.6%
STUDENT	2	0.4%
UNEMPLOYED > 2YRS	21	4.2%
UNSKILLED MANUAL	69	13.8%
Total	499	100.0%

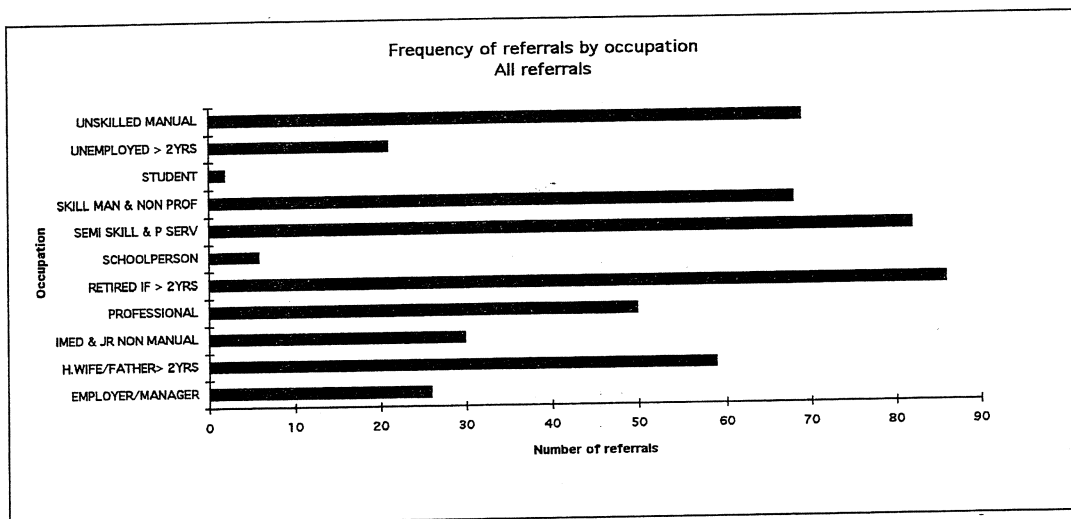


Table 5b Frequency of referrals by occupation - Patients discharged normally

OCCUPATION	Number	Percent
EMPLOYER/MANAGER	20	6.6%
H.WIFE/FATHER> 2YRS	34	11.1%
IMED & JR NON MANUAL	17	5.6%
PROFESSIONAL	31	10.2%
RETIRED IF > 2YRS	62	20.3%
SCHOOLPERSON	3	1.0%
SEMI SKILL & P SERV	49	16.1%
SKILL MAN & NON PROF	43	14.1%
STUDENT	1	0.3%
UNEMPLOYED > 2YRS	10	3.3%
UNSKILLED MANUAL	35	11.5%
Total	305	100.0%

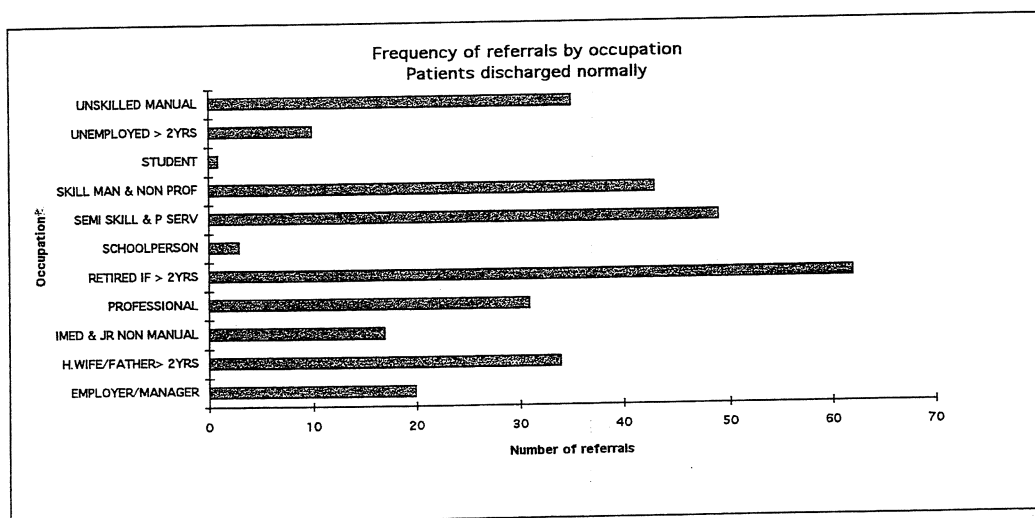


Table 6a Frequency of referrals by occupation and physiotherapy location - All referrals

OCCUPATION	OPD LOCATION										Total
	1	2	3	4	5	6	7	8	9	10	
EMPLOYER/MANAGER	1	2	2	0	1	2	4	9	2	3	26
H.WIFE/FATHER > 2YRS	1	6	2	12	2	2	7	9	5	13	59
IMED & JR NON MANUAL	1	2	3	4	1	1	4	7	2	5	30
PROFESSIONAL	2	8	5	5	1	4	4	5	6	10	50
RETIRED IF > 2YRS	5	5	7	15	3	1	10	11	9	19	85
SCHOOLPERSON	1	0	1	0	0	0	0	1	0	3	6
SEMI SKILL & P SERV	4	7	6	11	4	3	12	10	5	20	82
SKILL MAN & NON PROF	2	13	3	8	0	3	8	6	8	16	67
STUDENT	0	1	0	0	0	0	0	0	0	1	2
UNEMPLOYED > 2YRS	0	2	0	6	1	0	0	6	1	5	21
UNSKILLED MANUAL	1	1	7	11	1	4	12	9	2	21	69
Total	18	47	36	72	14	20	61	73	40	116	497

Table 6b Frequency of referrals by occupation and physiotherapy location - Patients discharged normally

OCCUPATION	OPD LOCATION										Total
	1	2	3	4	5	6	7	8	9	10	
EMPLOYER/MANAGER	1	1	2	0	1	0	4	8	1	2	20
H.WIFE/FATHER > 2YRS	0	4	2	4	0	0	6	6	2	10	34
IMED & JR NON MANUAL	1	1	2	1	1	1	2	3	1	4	17
PROFESSIONAL	1	7	2	3	0	1	2	4	6	5	31
RETIRED IF > 2YRS	4	3	3	12	2	1	9	9	7	11	61
SCHOOLPERSON	0	0	0	0	0	0	0	1	0	2	3
SEMI SKILL & P SERV	2	5	6	4	2	2	8	10	1	9	49
SKILL MAN & NON PROF	2	9	1	5	0	1	3	4	5	12	42
STUDENT	0	1	0	0	0	0	0	0	0	0	1
UNEMPLOYED > 2YRS	0	2	0	3	0	0	0	3	0	2	10
UNSKILLED MANUAL	0	1	3	6	0	1	6	7	1	10	35
Total	11	34	21	38	6	7	40	55	24	67	303

Table 7a Frequency of referrals by episode group - All referrals

EPISODE	Number	Percent
1ST EPISODE	202	55.0%
RECURRENT	165	45.0%
Total	367	100.0%

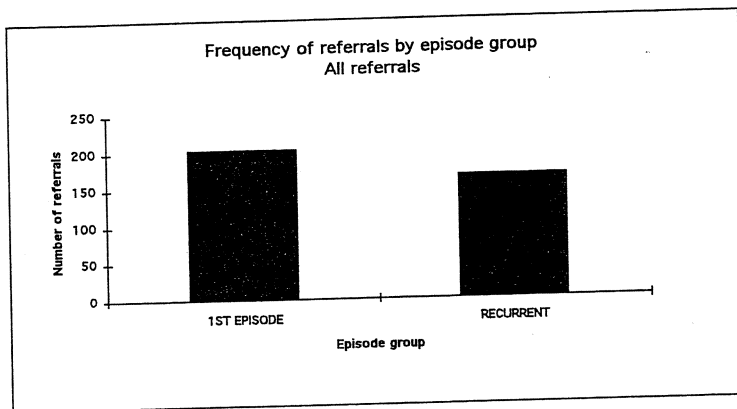


Table 7b Frequency of referrals by episode group - Patients discharged normally

EPISODE1	Number	Percent
1ST EPISODE	116	52.0%
RECURRENT	107	48.0%
Total	223	100.0%

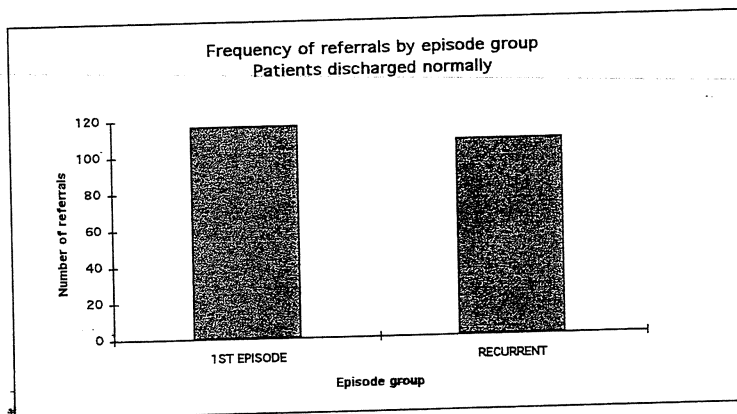


Table 8a Frequency of referrals by secondary diagnosis - All referrals

SECONDARY1	Number	Percent
DEGENERATIVE	124	23.6%
INFLAMMATORY	22	4.2%
NEUROMUSCULOSKELETAL	292	55.5%
NEUROLOGICAL	1	0.2%
PATHOLOGICAL	4	0.8%
POSTURAL	38	7.2%
STRESS	1	0.2%
SURGICAL	2	0.4%
TRAUMATIC	42	8.0%
Total	526	100%

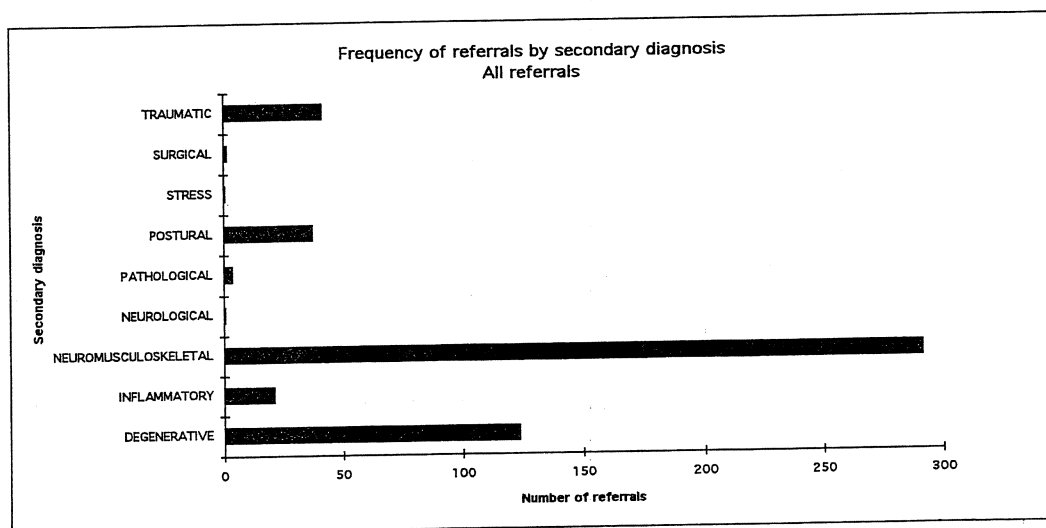


Table 8b Frequency of referrals by secondary diagnosis - Patients discharged normally

SECONDARY1	Number	Percent
DEGENERATIVE	82	25.6%
INFLAMMATORY	13	4.1%
NEUROMUSC.SKELETAL	180	56.3%
NEUROLOGICAL	1	0.3%
PATHOLOGICAL	2	0.6%
POSTURAL	17	5.3%
SURGICAL	1	0.3%
TRAUMATIC	24	7.5%
Total	320	100%

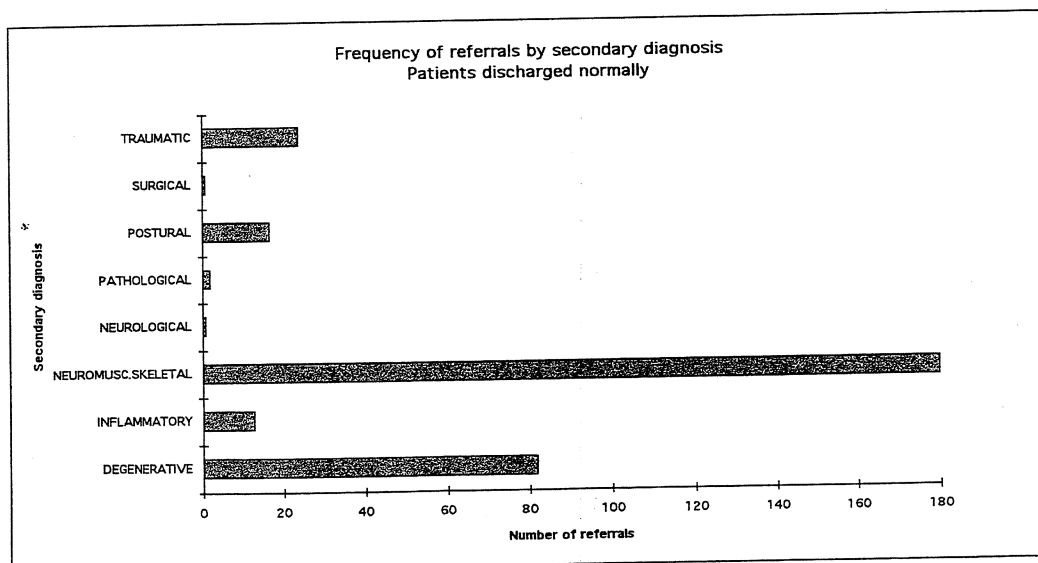


Table 9a Frequency of referrals by bodysite - All referrals

BODYSITE	Number	Percent
LOWER LEG	1	0.2%
LOWER LIMB	1	0.2%
LUMBAR	192	35.3%
LUMBAR & NEURO SIGNS	47	8.6%
LUMBAR + REFERRAL	277	50.9%
MULTIPLE REGIONS	3	0.6%
SACROILIAC	11	2.0%
THORACIC	4	0.7%
THORACIC + REFERRAL	8	1.5%
Total	544	100.0%

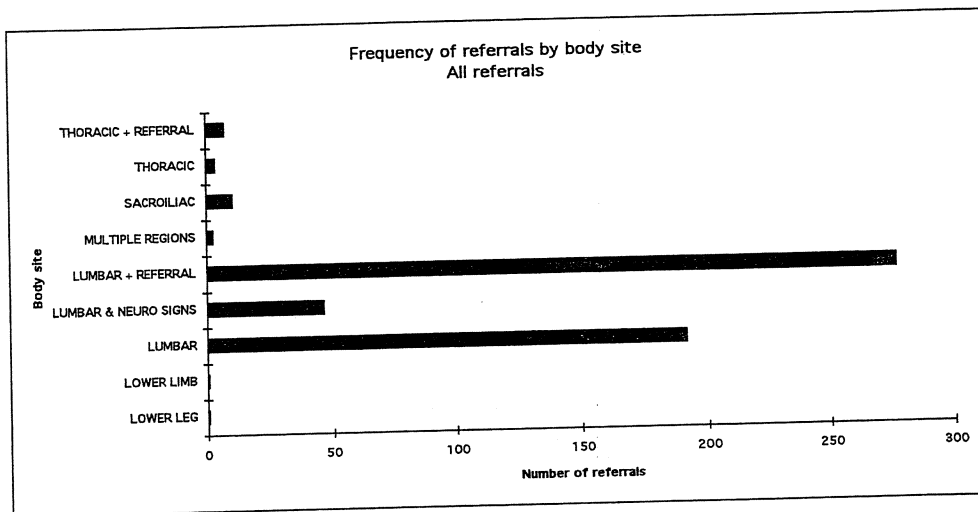


Table 9b Frequency of referrals by bodysite - Patients discharged normally

BODYSITE	Number	Percent
LOWER LIMB	1	0.3%
LUMBAR	116	35.2%
LUMBAR & NEURO SIGNS	22	6.7%
LUMBAR + REFERRAL	175	53.0%
SACROILIAC	8	2.4%
THORACIC	2	0.6%
THORACIC + REFERRAL	6	1.8%
Total	330	100.0%

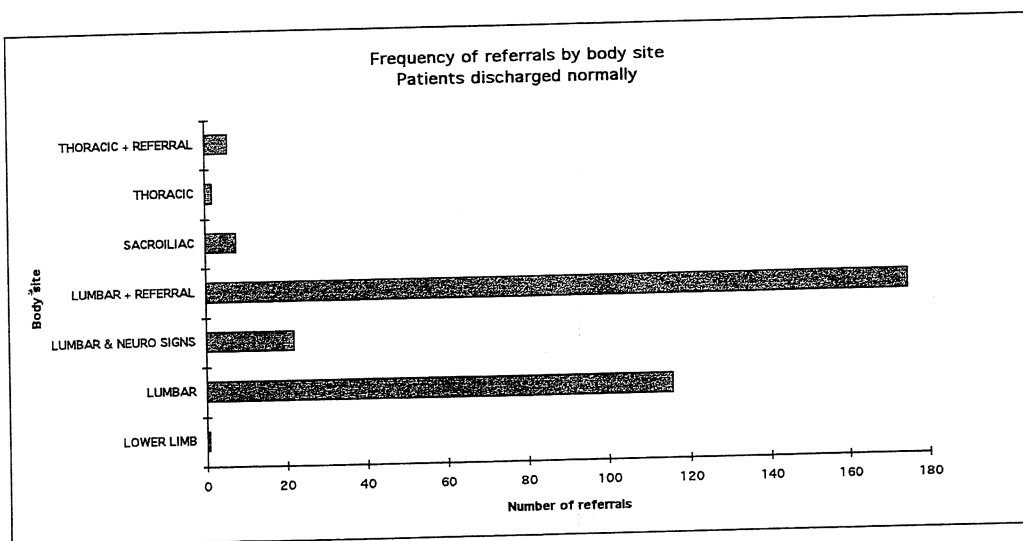


Table 10a Frequency of referrals by laterality - All referrals

LATERALITY	Number	Percent
BILATERAL	244	46.0%
UNILATERAL	287	54.0%
Total	531	100.0%

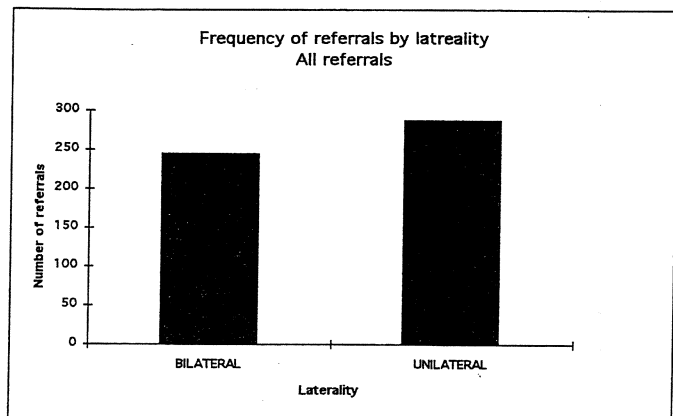


Table 10b Frequency of referrals by laterality - Patients discharged normally

LATERALITY	Number	Percent
BILATERAL	141	43.3%
UNILATERAL	185	56.7%
Total	326	100.0%

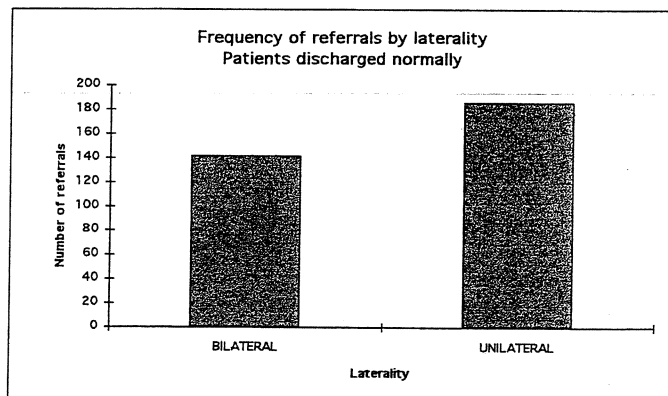


Table 11a Length of wait in weeks from referral to commencement of physiotherapy - All referrals

Wait	Number	Percent
0	58	10.8%
1	98	18.3%
2	106	19.8%
3	56	10.5%
4	40	7.5%
5	24	4.5%
6	31	5.8%
7	18	3.4%
8	20	3.7%
9	5	0.9%
10	16	3.0%
11	11	2.1%
12	13	2.4%
13	3	0.6%
14	3	0.6%
15	7	1.3%
16	4	0.7%
17	4	0.7%
18	4	0.7%
19	7	1.3%
22	1	0.2%
23	2	0.4%
25	1	0.2%
26	2	0.4%
28	1	0.2%
Total	535	100.0%

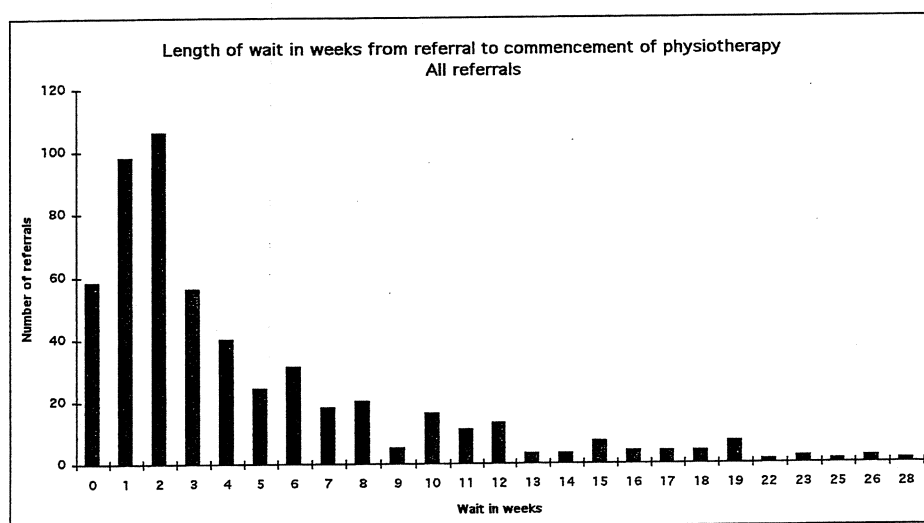


Table 11b Length of wait in weeks from referral to commencement of physiotherapy - Patients discharged normally

Wait	Number	Percent
0	37	11.7%
1	56	17.7%
2	61	19.3%
3	35	11.1%
4	21	6.6%
5	14	4.4%
6	22	7.0%
7	7	2.2%
8	14	4.4%
9	4	1.3%
10	6	1.9%
11	6	1.9%
12	10	3.2%
13	1	0.3%
14	3	0.9%
15	4	1.3%
16	3	0.9%
17	3	0.9%
18	2	0.6%
19	3	0.9%
23	1	0.3%
25	1	0.3%
26	2	0.6%
Total	262	100.0%

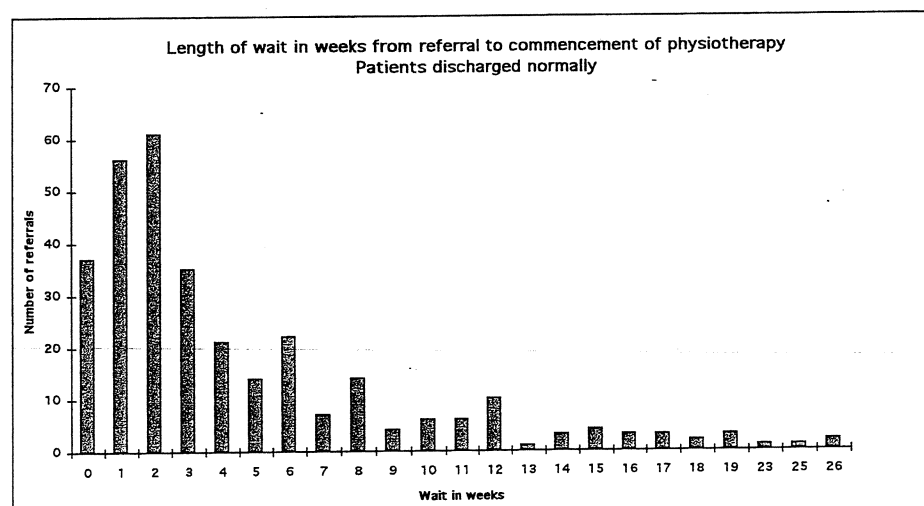


Table 12 Frequency of outcome of referral - All referrals

OUTCOME REF	Number	Percent
ASSESS COMPLETE REVIEW	9	1.6%
ASSESS COMPLETE NO PT	9	1.6%
DNA	36	6.5%
DISCHARGED NORMALLY	333	59.8%
INAPPROPRIATE REFERRAL	1	0.2%
INTERUPPTED (FTA)	61	11.0%
INTERUPPTED (UTA)	22	3.9%
OTHER	1	0.2%
PATIENT NON COMPLIANT	3	0.5%
PT NOT EFFECTIVE	19	3.4%
REFERRED BACK TO GP/CONS	54	9.7%
TREATMENT NOT COMMENCED	6	1.1%
TRANSFER IN DISTRICT	2	0.4%
TRANSFER OUTSIDE	1	0.2%
Total	557	100.0%

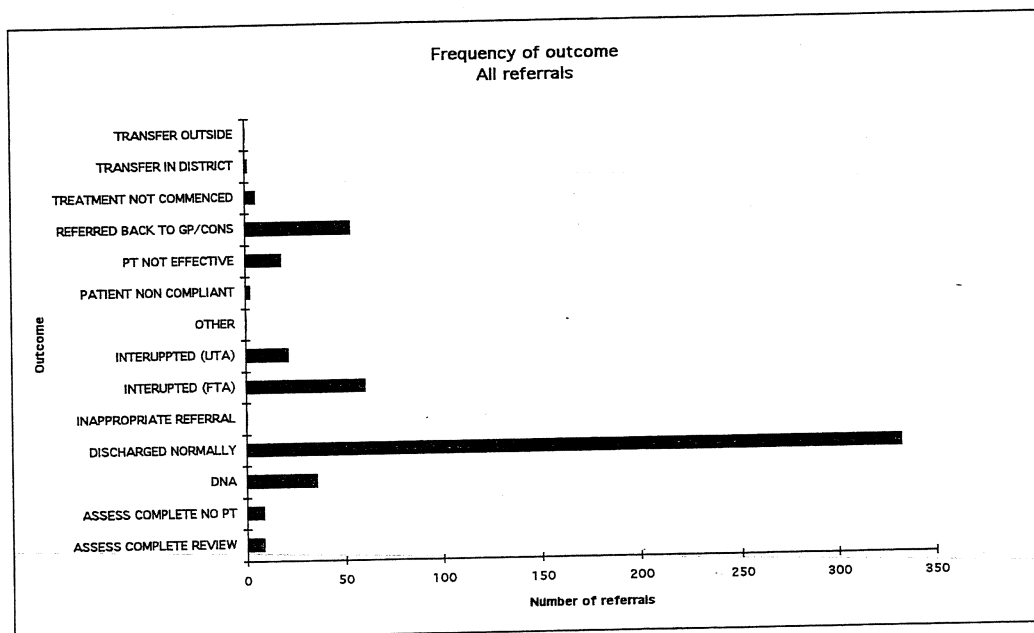


Table 13a Frequency of other factors influencing outcome - All referrals

OTHER FACTORS	Number	Percent
CEASED TO ATTEND	75	14.7%
EDUCATION / ADVICE ONLY	3	0.6%
EXACERBATION OF CONDITION	12	2.3%
GENERAL STATE	38	7.4%
INAPPROPRIATE REFERRAL	3	0.6%
LIFESTYLE INFLUENCES	77	15.1%
NO OTHER FACTORS	223	43.6%
OTHER MEDICAL CONDITIONS	19	3.7%
OTHER MEDICAL INTERVEN.	8	1.6%
PAIN FREE FIRST VISIT	11	2.2%
REFERRAL TO CONS OR GP	27	5.3%
TIME,PROG,NO T'MENT	15	2.9%
Total	511	100%

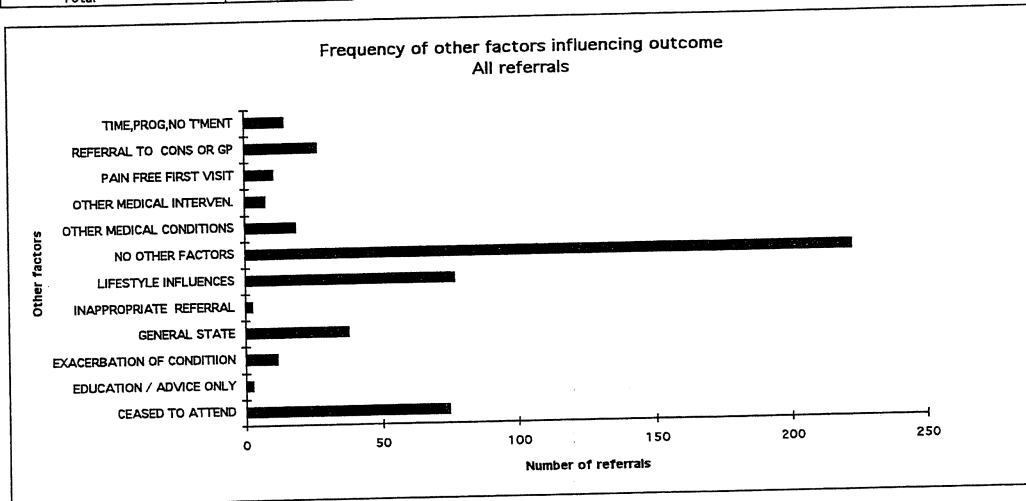


Table 13b Frequency of other factors influencing outcome - Patients discharged normally

OTHER FACTORS	Number	Percent
CEASED TO ATTEND	2	0.6%
EDUCATION / ADVICE ONLY	1	0.3%
EXACERBATION OF CONDITION	6	1.9%
GENERAL STATE	22	6.9%
INAPPROPRIATE REFERRAL	2	0.6%
LIFESTYLE INFLUENCES	59	18.4%
NO OTHER FACTORS	207	64.7%
OTHER MEDICAL CONDITIONS	11	3.4%
OTHER MEDICAL INTERVEN.	4	1.3%
PAIN FREE FIRST VISIT	2	0.6%
REFERRAL TO CONS OR GP	2	0.6%
TIME,PROG,NO T'MENT	2	0.6%
Total	320	100%

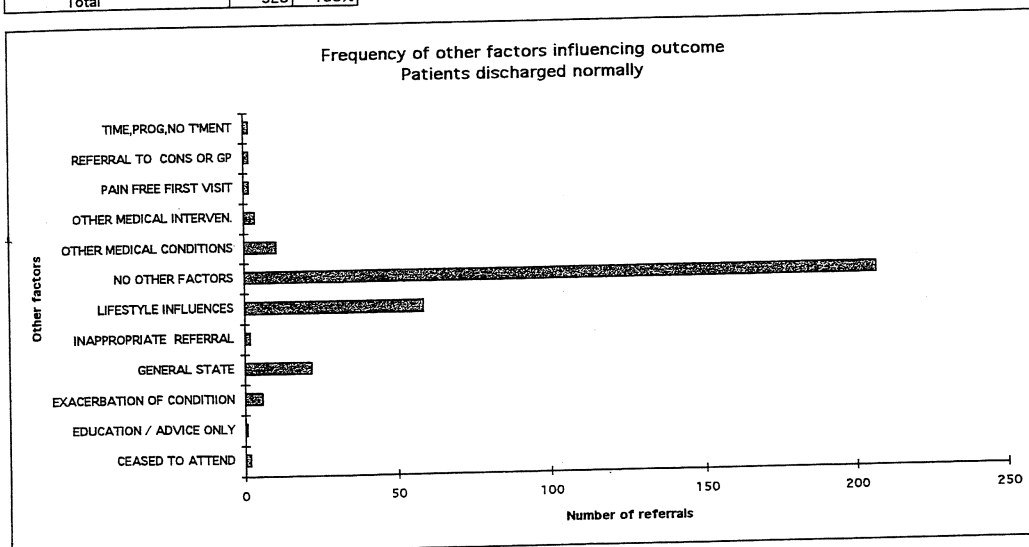


Table 14a Frequency of use of treatment modalities 1st choice - All referrals

TREATMENT 1ST	Number	Percent
ACT & PAS EXS / ADV	8	1.5%
ACT EXS / EDU / ADV	26	4.9%
ACT EXS / ADV	35	6.6%
ACTIVE EXERCISES	16	3.0%
ACUPUNCTURE	4	0.8%
ADVICE SEL MAN/CARER	22	4.1%
BACK REHAB CLASS	1	0.2%
BACK SCHOOL	1	0.2%
EDUCATION	4	0.8%
GAIT RE-EDUCATION	1	0.2%
HYDROTHERAPY	1	0.2%
INTERFERENTIAL	27	5.1%
LASER	1	0.2%
LOCAL HEAT (IR PP)	1	0.2%
MASSAGE	12	2.3%
MOB / US /SWD /ADV	28	5.3%
MOB / ACT EXS	1	0.2%
MOB / PAS EXS / SWD	146	27.4%
MOB /ACT EXS /ADV	13	2.4%
MOB /ADV /US	10	1.9%
MOB / EDU /SWD	50	9.4%
MOB / ACT EXS / TRACTION	18	3.4%
MOB / MANIP	3	0.6%
MOB / ADV	8	1.5%
NEURODYNAMIC FACILITATION	2	0.4%
PAS EXS	13	2.4%
RE-ED MUSCLE IMBALANCE	18	3.4%
RE-ED / ACT EXS / MOB / ADV	1	0.2%
SWD	8	1.5%
SWD / ACT EXS /ADV	13	2.4%
SWD / ACT EXS / PAS EXS / MOB	4	0.8%
TENS	31	5.8%
TRACTION	4	0.8%
ULTRASOUND	532	100.0%
Total		

Key to abbreviations	
ACT	= Active
ADV	= Advice
EDU	= Education
EXS	= Exercises
MANIP	= Manipulation
MOB	= Mobilisation
PAS	= Passive
RE-ED	= Re-education
SWD	= Short Wave Diathermy
TRAC	= Traction
US	= Ultrasound

Table 14b Frequency of use of treatment modalities 1st choice- Patients discharged normally

TREATMENT 1ST	Number	Percent
ACT & PAS EXS / ADV	6	1.8%
ACT EXS / EDU / ADV	19	5.7%
ACT EXS / ADV	18	5.4%
ACTIVE EXERCISES	10	3.0%
ACUPUNCTURE	1	0.3%
ADVICE SEL MAN/CARER	8	2.4%
BACK REHAB CLASS	1	0.3%
EDUCATION	2	0.6%
GAIT RE-EDUCATION	1	0.3%
INTERFERENTIAL	11	3.3%
LOCAL HEAT (IR PP)	1	0.3%
MASSAGE	1	0.3%
MOB / US /SWD /ADV	8	2.4%
MOB / ACT EXS	19	5.7%
MOB / PAS EXS / SWD	1	0.3%
MOB /ACT EXS /ADV	108	32.4%
MOB /ADV /US	10	3.0%
MOB / EDU /SWD	5	1.5%
MOB / ACT EXS / TRACTION	24	7.2%
MOB / MANIP	10	3.0%
MOB / ADV	2	0.6%
NEURODYNAMIC FACILITATION	6	1.8%
PAS EXS	1	0.3%
RE-ED MUSCLE IMBALANCE	10	3.0%
RE-ED / ACT EXS / MOB / ADV	16	4.8%
SWD	1	0.3%
SWD / ACT EXS /ADV	4	1.2%
SWD / ACT EXS / PAS EXS / MOB	9	2.7%
TRACTION	17	5.1%
ULTRASOUND	3	0.9%
Total	333	100.0%

Table 15a Frequency of use of additional treatment modalities 2nd choice - All referrals

TREATMENT 2ND	Number	Percent
ACT EXS / PAS EXS / ADV	2	0.8%
ACT EXS / EDU / ADV	8	0.3%
ACT EXS / ADV	10	3.8%
ACTIVE EXERCISES	20	7.6%
ACUPUNCTURE	1	0.4%
ADVICE SEL MAN/CARER	8	3.0%
APPLIANCE FITTING	4	1.5%
BACK REHAB CLASS	1	0.4%
BACK SCHOOL	3	1.1%
EDUCATION	8	3.0%
GAIT RE-EDUCATION	1	0.4%
HYDROTHERAPY	3	1.1%
ICE	3	1.1%
INTERFERENTIAL	35	13.3%
LOCAL HEAT (IR PP)	5	1.9%
MASSAGE	1	0.4%
MOB / ACT EXS	9	3.4%
MOB / ACT EXS / ADV	28	10.6%
MOB / AGV / US	2	0.8%
MOB / EDU / SWD	3	1.1%
MOB / ACT EXS / TRACTION	2	0.8%
MOB / MANIP	12	4.6%
MOB / ADV	3	1.1%
NEURODYNAMIC FACILITATION	8	3.0%
PASSIVE EXERCISES	2	0.8%
RE-ED MUSCLE IMBALANCE	11	4.2%
RE-ED / ACT EXS / MOB ADV	2	0.8%
SWD	12	4.6%
STRAPPING	1	0.4%
SWD / ACT EXS / MOB / ADV	1	0.4%
TENS	3	1.1%
TRACTION	23	8.7%
TRIGGER POINT TISSUE STRETCH	2	0.8%
ULTRAVIOLET	1	0.4%
ULTRASOUND	25	9.5%
Total	263	100.0%

Key to abbreviations	
ACT	= Active
ADV	= Advice
EDU	= Education
EXS	= Exercises
MANIP	= Manipulation
MOB	= Mobilisation
PAS	= Passive
RE-ED	= Re-education
SWD	= Short Wave Diathermy
TRAC	= Traction
US	= Ultrasound

Table 15b Frequency of use of additional treatment modalities 2nd choice - Patients discharged normally

TREATMENT 2ND	Number	Percent
ACT EXS / PAS EXS / ADV	2	1.2%
ACT EXS / EDU / ADV	5	3.0%
ACT EXS / ADV	7	4.2%
ACTIVE EXERCISES	12	7.1%
ACUPUNCTURE	1	0.6%
ADVICE SEL MAN/CARER	4	2.4%
APPLIANCE FITTING	4	2.4%
BACK SCHOOL	3	1.8%
EDUCATION	6	3.6%
GAIT RE-EDUCATION	1	0.6%
HYDROTHERAPY	2	1.2%
ICE	3	1.8%
INTERFERENTIAL	21	12.5%
LOCAL HEAT (IR PP)	2	1.2%
MASSAGE	1	0.6%
MOB / ACT EXS	6	3.6%
MOB / ACT EXS / ADV	16	9.5%
MOB / EDU / SWD	1	0.6%
MOB / ACT EXS / TRACTION	2	1.2%
MOB / MANIP	8	4.8%
MOB / ADV	2	1.2%
NEURODYNAMIC FACILITATION	6	3.6%
RE-ED MUSCLE IMBALANCE	8	4.8%
RE-ED / ACT EXS / MOB ADV	2	1.2%
SWD	7	4.2%
STRAPPING	1	0.6%
TENS	3	1.8%
TRACTION	12	7.1%
TRIGGER POINT TISSUE STRETCH	1	0.6%
ULTRAVIOLET	1	0.6%
ULTRASOUND	18	10.7%
Total	168	100.0%

Table 16a Frequency of use of additional treatment modalities 3rd choice - All referrals

TREATMENT 3RD	Number	Percent	Key to abbreviations
ACT EXS / EDU / ADV	1	1.2%	ACT = Active
ACT EXS / ADV	4	4.7%	ADV = Advice
ACTIVE EXERCISE	9	10.6%	EDU = Education
ADV SEL MAN / CARER	5	5.9%	EXS = Exercises
APPLIANCE FITTING	2	2.4%	MANIP = Manipulation
EDUCATION	4	4.7%	MOB = Mobilisation
GAIT RE-EDUCATION	1	1.2%	PAS = Passive
HYDROTHERAPY	1	1.2%	RE-ED = Re-education
ICE	1	1.2%	SWD = Short Wave Diathermy
INTERFERENTIAL	5	5.9%	TRAC = Traction
LASER	1	1.2%	US = Ultrasound
LOCAL HEAT (IR PP)	4	4.7%	
MASSAGE	1	1.2%	
MOB / US / SWD / ADV	1	1.2%	
MOB / ACT EXS / ADV	9	10.6%	
MOB / ADV / US	1	1.2%	
MOB / MANIP	5	5.9%	
MOB / ADV	2	2.4%	
NEURODYNAMIC FACILITATION	7	8.2%	
RE-ED MUSCLE IMBALANCE	4	4.7%	
RE-ED / ACT EXS / MOB / ADV	1	1.2%	
STRAPPING	2	2.4%	
SWD / ACT EXS / PAS EXS / MOB	1	1.2%	
TENS	4	4.7%	
TRACTION	9	10.6%	
Total	85	100.0%	

Table 16b Frequency of use of additional treatment modalities 3rd choice - Patients discharged normally

TREATMENT 3RD	Number	Percent
ACT EXS / EDU / ADV	1	2.0%
ACT EXS / ADV	3	6.1%
ACTIVE EXERCISE	2	4.1%
APPLIANCE FITTING	2	4.1%
EDUCATION	2	4.1%
HYDROTHERAPY	1	2.0%
INTERFERENTIAL	3	6.1%
LASER	1	2.0%
LOCAL HEAT (IR PP)	3	6.1%
MASSAGE	1	2.0%
MOB / US / SWD / ADV	1	2.0%
MOB / ACT EXS / ADV	5	10.2%
MOB / ADV / US	1	2.0%
MOB / MANIP	2	4.1%
MOB / ADV	2	4.1%
NEURODYNAMIC FACILITATION	6	12.2%
RE-ED MUSCLE IMBALANCE	4	8.2%
STRAPPING	1	2.0%
SWD / ACT EXS / PAS EXS / MOB	1	2.0%
TENS	3	6.1%
TRACTION	4	8.2%
Total	49	100.0%

Table 19a Frequency of preferred treatment modality by OPD location - All referrals

TREATMENT1	1	2	3	4	5	6	7	8	9	10	Total
ACT & PAS EXS / ADV	1	1	0	3	1	0	1	0	1	0	8
ACT EXS / EDU / ADV	0	3	2	2	1	0	7	5	0	6	26
ACT EXS / ADV	1	0	3	3	3	6	5	8	5	1	35
ACTIVE EXERCISES	0	2	1	4	0	1	1	4	2	0	15
ACUPUNCTURE	1	0	0	1	0	0	0	0	0	2	4
ADVICE SEL MAN/CARER	2	0	5	2	0	4	2	2	5	0	22
BACK REHAB CLASS	0	0	0	0	0	0	0	1	0	0	1
BACK SCHOOL	0	0	0	0	0	0	0	1	0	0	1
EDUCATION	0	0	0	1	0	1	0	1	0	1	4
GAIT RE-EDUCATION	0	0	0	0	0	0	0	0	0	1	1
HYDROTHERAPY	0	0	0	0	0	0	0	0	0	1	1
INTERFERENTIAL	0	3	0	13	0	1	6	0	1	3	27
LASER	0	0	0	1	0	0	0	0	0	0	1
LOCAL HEAT (IR PP)	0	0	0	1	0	0	0	0	0	0	1
MASSAGE	0	0	1	0	0	0	0	0	0	0	1
MOB / US /SWD /ADV	0	1	0	0	0	0	0	0	0	11	12
MOB / ACT EXS	3	3	1	3	4	0	5	3	5	0	27
MOB / PAS EXS / SWD	0	0	0	0	0	0	0	0	0	1	1
MOB /ACT EXS /ADV	2	12	5	26	2	5	19	27	10	38	146
MOB /ADV /US	0	0	0	1	0	1	7	0	0	4	13
MOB / EDU /SWD	0	5	0	0	0	0	1	0	0	4	10
MOB / ACT EXS / TRACTION	0	6	13	2	0	2	3	6	3	15	50
MOB / MANIP	1	2	1	1	0	0	1	3	1	8	18
MOB / ADV	0	2	0	0	1	0	0	0	0	0	3
NEURODYNAMIC FACILITATION	1	2	1	0	1	1	1	0	0	1	8
PASSIVE EXERCISES	1	0	0	0	0	0	1	0	0	0	2
RE-ED MUSCLE IMBALANCE	0	3	0	0	1	0	0	3	1	5	13
RE-ED / ACT EXS / MOB / ADV	1	0	0	2	0	1	1	4	6	3	18
SWD	0	1	0	0	0	0	0	0	0	0	1
SWD / ACT EXS /ADV	0	0	0	1	0	0	1	0	0	6	8
SWD / ACT EXS / PAS EXS / MOB	0	1	2	2	0	0	1	0	0	7	13
TENS	2	0	0	2	0	0	0	0	0	0	4
TRACTION	2	3	2	1	0	0	5	3	1	14	31
ULTRASOUND	0	2	0	1	0	0	1	0	0	0	4
Total	18	52	37	73	14	23	69	71	41	132	530

Table 19b Frequency of preferred treatment modality by OPD location - Patients discharged normally

TREATMENT1	1	2	3	4	5	6	7	8	9	10	Total
ACT & PAS EXS / ADV	1	1	0	1	1	0	1	0	1	0	6
ACT EXS / EDU / ADV	0	3	1	0	0	0	5	5	0	5	19
ACT EXS / ADV	1	0	2	3	0	1	3	6	2	0	18
ACTIVE EXERCISES	0	2	1	1	0	0	1	3	1	0	9
ACUPUNCTURE	1	0	0	0	0	0	0	0	0	0	1
ADVICE SEL MAN/CARER	0	0	2	0	0	1	1	1	3	0	8
BACK REHAB CLASS	0	0	0	0	0	0	0	1	0	0	1
EDUCATION	0	0	0	0	0	0	0	1	0	1	2
GAIT RE-EDUCATION	0	0	0	0	0	0	0	0	0	1	1
INTERFERENTIAL	0	2	0	4	0	0	2	0	1	2	11
LOCAL HEAT (IR PP)	0	0	0	1	0	0	0	0	0	0	1
MASSAGE	0	0	1	0	0	0	0	0	0	0	1
MOB / US /SWD /ADV	0	0	0	0	0	0	0	0	0	8	8
MOB / ACT EXS	3	3	1	1	2	0	3	2	3	0	18
MOB / PAS EXS / SWD	0	0	0	0	0	0	0	0	0	1	1
MOB /ACT EXS /ADV	2	9	3	19	2	5	13	23	6	26	108
MOB /ADV /US	0	0	0	1	0	0	6	0	0	3	10
MOB / EDU /SWD	0	2	0	0	0	0	1	0	0	2	5
MOB / ACT EXS / TRACTION	0	3	7	2	0	0	2	2	1	7	24
MOB / MANIP	0	2	1	0	0	0	0	3	0	4	10
MOB / ADV	0	2	0	0	0	0	0	0	0	0	2
NEURODYNAMIC FACILITATION	0	2	1	0	1	1	0	0	0	0	6
PASSIVE EXERCISES	0	0	0	0	0	0	1	0	0	0	1
RE-ED MUSCLE IMBALANCE	0	3	0	0	0	0	1	2	1	4	10
RE-ED / ACT EXS / MOB / ADV	1	0	0	2	0	1	0	4	5	3	16
SWD	0	1	0	0	0	0	0	0	0	0	1
SWD / ACT EXS /ADV	0	0	0	1	0	0	1	0	0	2	4
SWD / ACT EXS / PAS EXS / MOB	0	1	2	1	0	0	1	0	0	4	9
TRACTION	2	2	0	0	0	0	4	2	0	7	17
ULTRASOUND	0	2	0	1	0	0	0	0	0	0	3
Total	11	40	22	38	6	9	46	55	24	80	331

Table 20a Frequency of referral by grade of physiotherapist - All referrals

PHYSIOGRADE	Number	Percent
JUNIOR	68	12.4%
SENIOR I	242	44.2%
SENIOR II	214	39.1%
SUPERINTENDENT I	2	0.4%
SUPERINTENDENT II	8	1.5%
SUPERINTENDENT III	10	1.8%
SUPERINTENDENT IV	3	0.5%
Total	547	100.0%

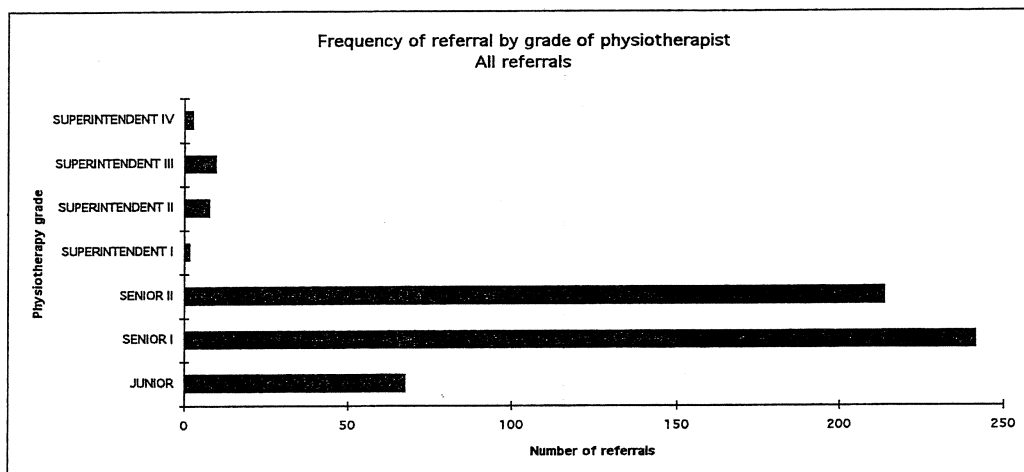


Table 20b Frequency of referral by grade of physiotherapist - Patients discharged normally

PHYSIOGRADE	Number	Percent
JUNIOR	41	12.3%
SENIOR I	145	43.5%
SENIOR II	131	39.3%
SUPERINTENDENT I	2	0.6%
SUPERINTENDENT II	5	1.5%
SUPERINTENDENT III	7	2.1%
SUPERINTENDENT IV	2	0.6%
Total	331	100.0%

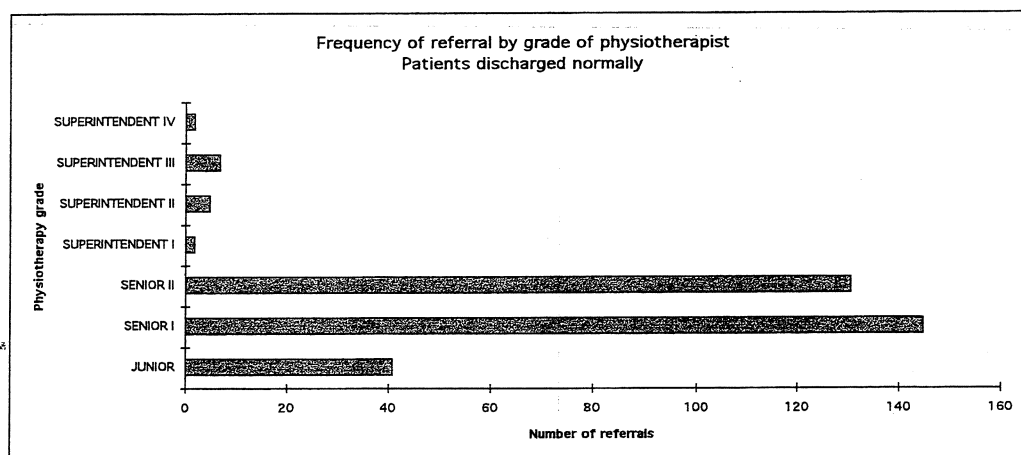


Table 21a Frequency of referral source - All referrals

REFERRALS	Number	Percent
CONSULTANT	89	16.0%
GENERAL PRACTITIONER	453	81.6%
ORTHOPAEDIC PRACTITIONER	11	2.0%
OTHER	2	0.4%
Total	555	100.0%

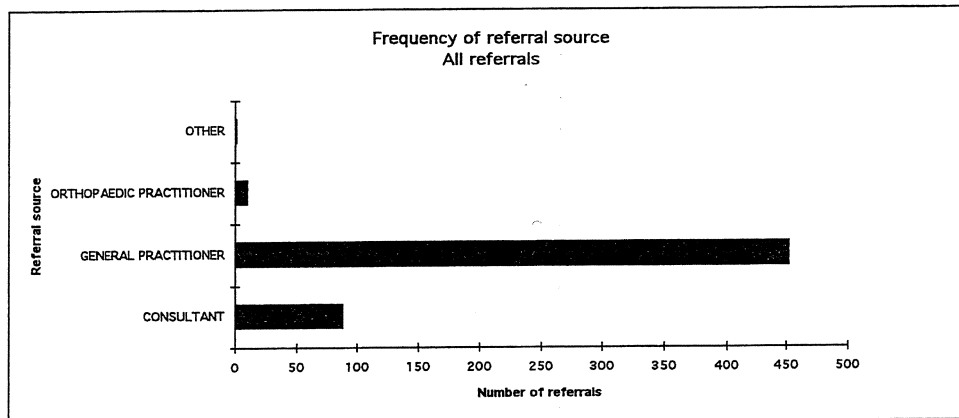


Table 21b Frequency of referral source - Patients discharged normally

REFERRALS	Number	Percent
CONSULTANT	42	12.8%
GENERAL PRACTITIONER	279	84.8%
ORTHOPAEDIC PRACTITIONER	7	2.1%
OTHER	1	0.3%
Total	329	100.0%

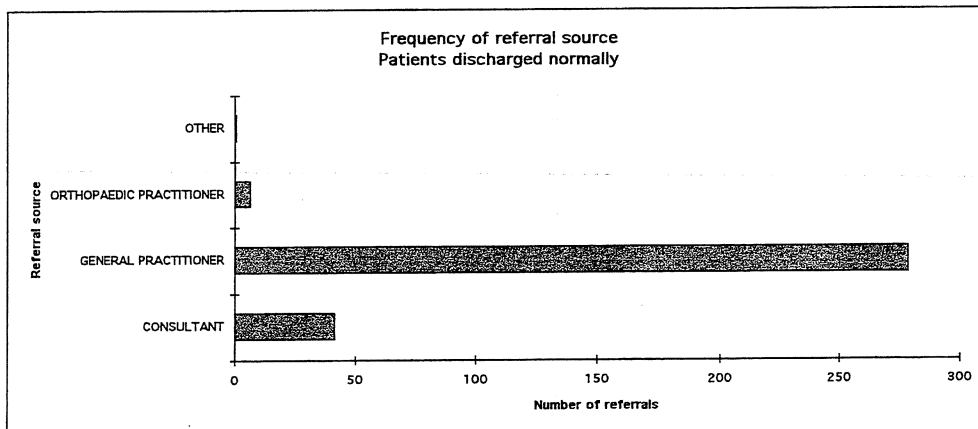


Table 22 Frequency of number of treatments received by grade of physiotherapist - Patients discharged normally

NUMBER OF TREATMENTS																		
PHYSIOGRADE	1	2	3	4	5	6	7	8	9	10	11	12	15	16	17	21	Total	
JUNIOR	0	7	7	4	7	4	3	6	1	1	0	1	0	0	0	0	41	
SENIOR I	1	11	22	21	27	25	15	7	7	3	2	1	1	1	0	1	145	
SENIOR II	0	8	24	27	18	14	12	10	8	4	2	2	1	0	1	0	131	
SUPERINTENDENT I	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	2	
SUPERINTENDENT II	0	0	0	1	1	0	0	1	1	0	1	0	0	0	0	0	5	
SUPERINTENDENT III	0	1	1	1	0	1	1	0	1	1	0	0	0	0	0	0	7	
SUPERINTENDENT IV	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	
Total	1	27	55	54	55	44	31	24	18	9	6	4	2	1	1	1	333	

Table 23 Table of goal achievement by OPD location

GOAL ACH.	OPD Location										Total
	1	2	3	4	5	6	7	8	9	10	
1.0	1	4	2	8	1	3	5	13	1	7	45
2.0	1	5	1	2	0	0	0	2	2	6	19
3.0	0	0	1	1	0	0	0	0	0	0	2
4.0	0	1	0	2	0	0	0	0	0	1	4
5.0	3	15	10	14	5	5	20	21	6	24	123
6.0	3	6	4	7	0	2	7	9	7	21	66
6.5	0	0	0	1	0	0	0	0	1	0	2
7.0	1	0	1	0	0	0	0	0	0	4	6
8.0	0	1	0	1	0	0	2	0	0	0	4
9.0	0	3	3	5	4	1	8	8	3	7	42
10.0	3	4	1	9	0	0	5	3	3	12	40
11.0	1	0	0	0	0	0	1	1	0	3	6
12.0	0	0	0	0	0	0	0	0	0	1	1
13.0	2	2	1	2	0	0	2	2	3	3	17
14.0	1	4	1	2	0	1	3	4	3	7	26
15.0	0	0	2	0	0	0	1	0	0	0	3
16.0	0	1	0	1	0	0	0	0	0	0	2
17.0	1	0	3	7	1	1	5	8	2	3	31
18.0	1	1	2	1	0	1	3	1	1	8	19
19.0	0	0	0	0	0	0	0	0	0	1	1
21.0	0	0	0	0	0	1	0	0	0	2	3
22.0	0	0	0	0	0	0	1	0	0	1	2
Total	18	47	32	63	11	15	63	72	32	111	464

Table 24 Table of increase in functional ability by treatment modality

TREATMENT	OUTCOME													Total
	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	8	
ACT & PAS EXS / ADV	4	0	0	0	0	0	1	0	0	0	0	0	0	5
ACT EXS / EDU / ADV	6	0	3	1	2	1	0	0	0	0	0	0	0	13
ACT EXS / ADV	6	2	3	0	1	1	2	0	0	0	0	0	0	15
ACTIVE EXERCISES	5	1	1	0	0	0	0	0	0	0	0	0	0	7
ACUPUNCTURE	0	0	1	0	0	0	0	0	0	0	0	0	0	1
ADVICE SEL MAN/CARER	2	1	0	0	0	0	0	0	0	0	0	0	0	3
EDUCATION	0	0	0	0	1	0	0	0	0	0	0	0	0	1
GAIT RE-EDUCATION	1	0	0	0	0	0	0	0	0	0	0	0	0	1
INTERFERENTIAL	3	0	1	0	1	0	2	0	0	0	0	0	0	7
LOCAL HEAT (IR PP)	0	0	1	0	0	0	0	0	0	0	0	0	0	1
MASSAGE	1	0	0	0	0	0	0	0	0	0	0	0	0	1
MOB / US /SWD /ADV	0	3	0	0	2	1	1	1	0	0	0	0	0	8
MOB / ACT EXS	9	3	2	0	2	0	1	0	0	0	1	0	0	18
MOB /ACT EXS /ADV	33	10	15	8	11	2	2	1	1	1	1	0	0	85
MOB /ADV /US	3	2	1	0	1	0	0	0	0	0	0	0	0	7
MOB / EDU /SWD	2	0	1	0	0	0	0	0	0	0	0	0	0	3
MOB / ACT EXS / TRACTION	5	6	3	1	3	0	4	0	0	0	0	1	0	23
MOB / MANIP	5	1	1	0	0	0	1	0	0	0	0	0	0	8
MOB / ADV	0	0	1	0	0	0	1	0	0	0	0	0	0	2
NEUROMYOFACILITATION	1	0	1	0	1	0	2	0	0	0	0	0	0	5
PAS EXS	0	0	0	0	1	0	0	0	0	0	0	0	0	1
RE-ED MUSCLE IMBALANCE	3	1	2	0	1	0	0	0	0	0	0	0	0	7
RE-ED / ACT EXS / MOB / ADV	2	1	6	0	2	1	1	0	0	0	0	0	0	13
SWD	0	0	0	0	0	0	0	0	0	0	0	0	1	1
SWD / ACT EXS /ADV	0	0	0	0	1	0	1	1	0	0	0	0	0	3
SWD / ACT EXS / PAS EXS / MOB	0	1	2	0	0	0	0	0	0	0	0	0	0	3
TRACTION	3	1	7	0	1	1	0	0	0	0	0	0	0	13
ULTRASOUND	1	0	1	0	0	0	0	0	0	0	0	0	0	2
Total	95	33	53	10	31	7	19	3	1	1	2	1	1	257

Table 25 Table of change in functional ability by OPD location

OUTCOME	OPD LOCATION										Total
	1	2	3	4	5	6	7	8	9	10	
-6	0	1	0	0	0	0	0	0	0	0	1
-1.0	0	0	0	2	0	0	1	0	0	0	3
-0.5	0	0	0	0	0	0	1	0	1	1	3
0	7	7	7	10	1	8	9	13	4	17	83
0.5	2	2	5	5	4	0	9	10	10	13	60
1	5	17	8	13	5	5	15	20	5	21	114
1.5	0	1	6	3	0	0	5	5	4	14	38
2	2	7	1	13	0	1	9	12	4	17	66
2.5	1	1	0	3	0	0	2	0	0	4	11
3	0	6	5	8	0	1	5	5	1	11	42
3.5	0	0	0	1	0	0	1	1	0	4	7
4	1	2	0	5	1	0	1	4	2	4	20
4.5	0	0	0	0	0	0	0	1	0	2	3
5	0	0	0	0	0	0	0	0	0	1	1
5.5	0	0	0	0	0	0	0	0	0	1	1
6	0	2	0	0	0	0	0	0	0	0	2
6.5	0	0	0	0	0	0	0	0	0	1	1
8	0	1	0	0	0	0	0	0	0	0	1
Total	18	46	32	63	11	15	58	71	31	111	457

